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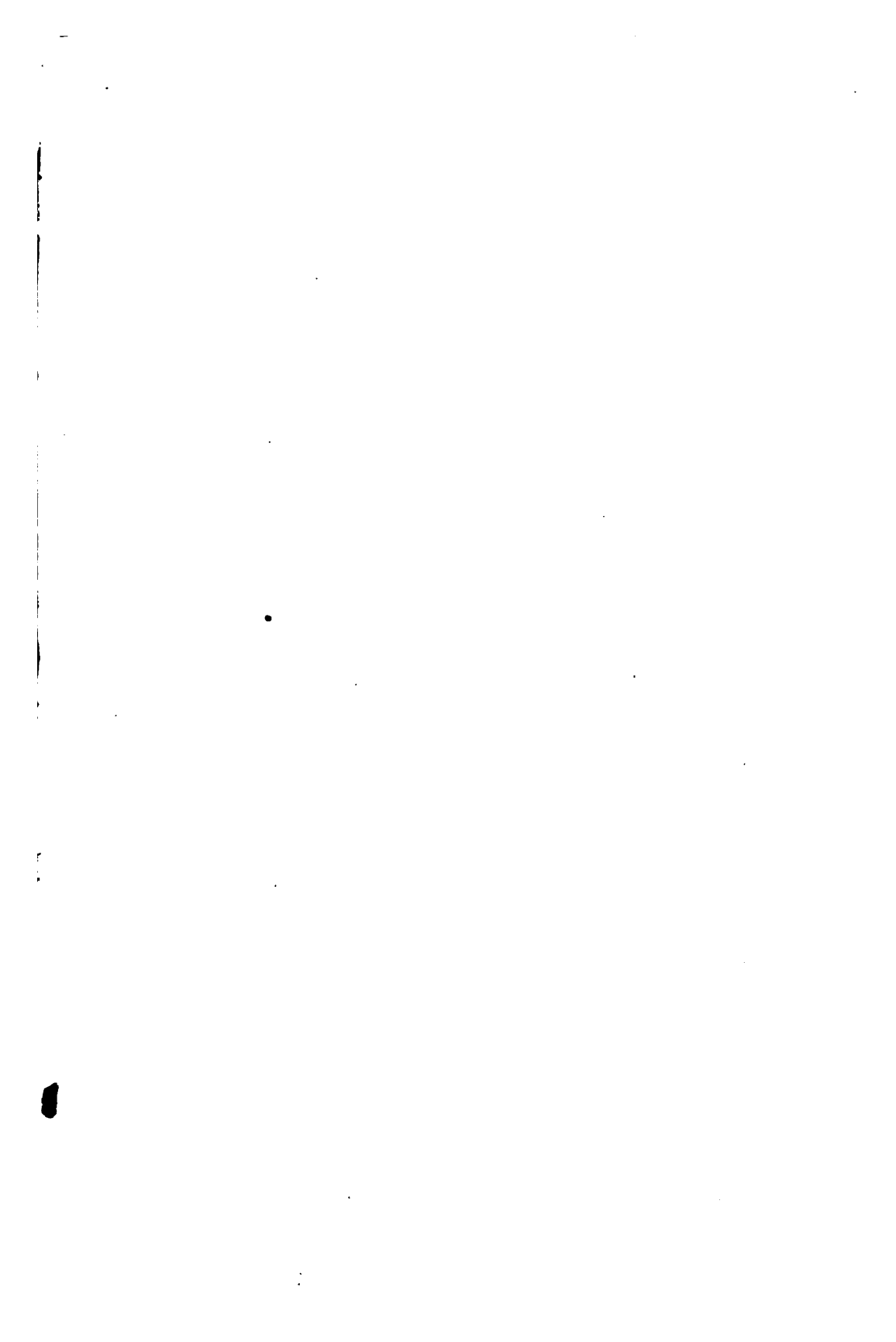
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DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

APHORISMS IN MEDICAL EMERGENCIES.*

An emergency may be defined as any event which calls for immediate action or remedy.

At any time the doctor may be taken unawares by an unexpected accident or an unforeseen occurrence, and a life may depend on his doing the right thing or in using the proper drug at once. No time is granted him to consult his books or to send for professional counsel. He must rely on his knowledge, his skill, and his memory. He is expected to be calm and collected and to put forth prompt and intelligent action. At times this may prove a trying ordeal to the physician, and it is well that he prepare himself beforehand to systematize his knowledge so that memory do not fail him. I present to your attention the more frequent medical emergencies and the modern way of treating them.

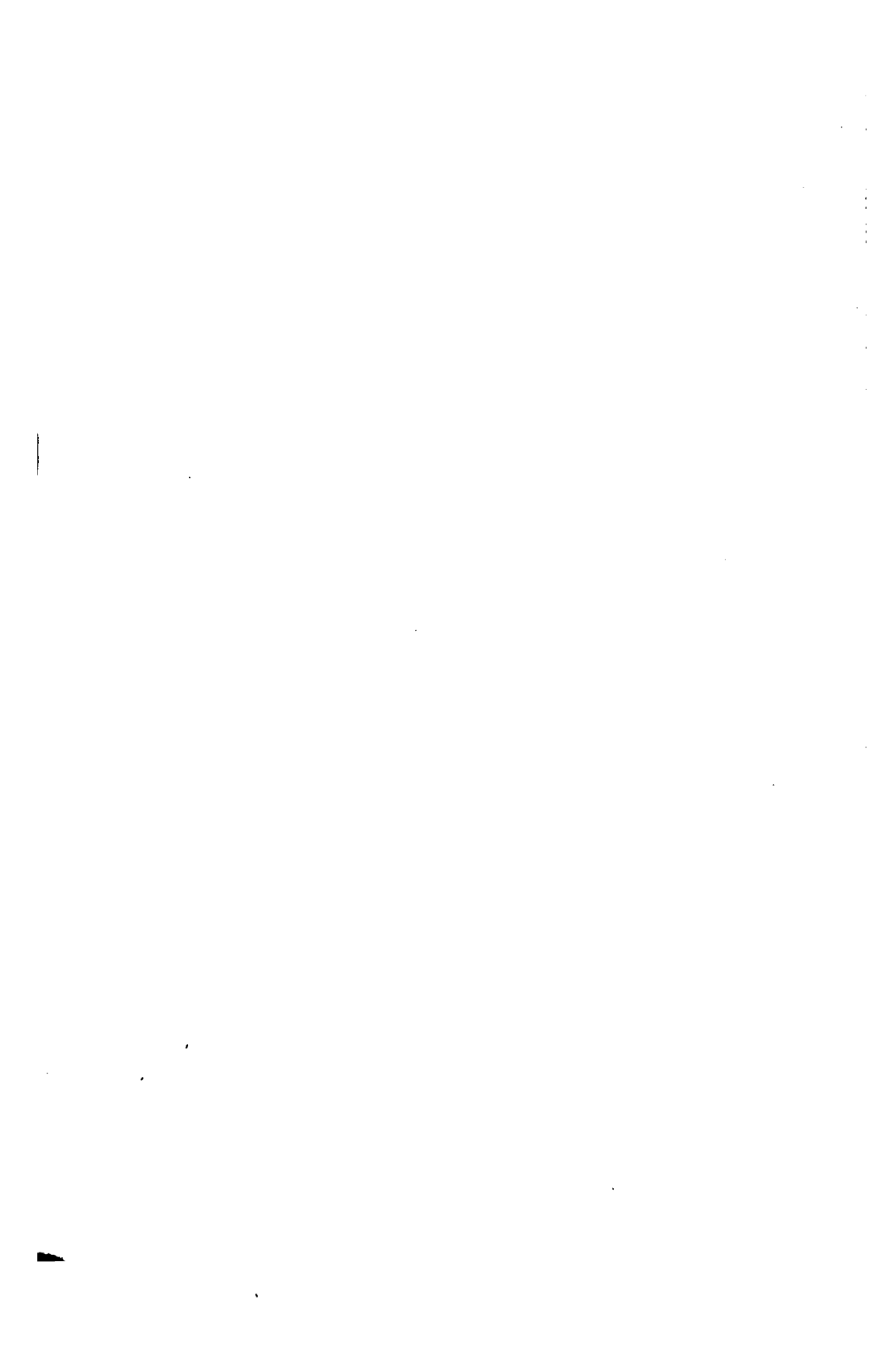
So that my paper may be of practical use, it is put up in the form of aphorisms and in alphabetical order.

1. *Abortion, Inevitable.* If the hemorrhage is profuse before dilatation of the os occurs, control the bleeding by vaginal tampons of borated cotton. Remove in eight hours, and reapply if required. Often when the first one is removed the ovum

* E. J. Kempf, M.D., in the American Practitioner and News.

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feces, retention of urine. Uremic coma—Biting of tongue, rolling of eyes, foaming at the mouth, face deadly pale, pupils dilated, limbs sometimes edematous. Diabetic coma—Dyspneic respiration, frequent small and weak pulse, and no edema. Coma may follow an epileptic fit, or may be brought on by opium poisoning, alcohol, carbolic acid, etc.

Treatment: Dark room, head high, head shaved, head cool, low diet; bowels to act with croton oil. If due to compression, antiseptic trephining; if due to uremia, pilocarpine and hot baths.

11. *Dyspnea*, the sensation of want of breath, due to congestion of the pulmonary capillaries, brought on by the supply of air being cut off from healthy air vesicles. The respirations are shallow, the breathing is hurried, and the pause is abolished. Symptoms of asphyxia become gradually developed, the lips grow purplish, the nose, the ears, and the finger nails have a dusky hue, and the extremities are cold. Dyspnea is brought on by muscular exertion, consolidation of pneumonia, edema glottidis, laryngitis, croup, bronchitis, asthma, intra-laryngeal growths, foreign bodies in larynx, trachea, or bronchi, emphysema, phthisis, pain as in pleurodynia and in pleurisy, and cardiac troubles.

Treatment: In dyspnea due to pain, to cardiac troubles, to asthma, morphine and atropine given hypodermically is the most reliable remedy. Inhalation of chloroform is often of benefit. Stimulants and anodynes often prove of service. In the dyspnea of bronchitis, laryngitis, croup, and edema glottidis, the inhalation of steam medicated with lime, bromide of potash, or listerine, administered with the steam atomizer, is indicated. Intubation or tracheotomy may become necessary, especially if the dyspnea is due to intra-laryngeal growths of foreign bodies, to croup, to edema glottidis, or to laryngitis. In the dyspnea due to phthisis, aromatic spirits of ammonia with a little morphine may give relief, especially if accompanied by applications of mustard plasters. In dyspnea due to pneumonic consolidation the hypodermic injection of ergot, warm poultices to the chest, and hot water bottles to the feet should be tried.

12. *Heatstroke* may be caused by heat of any kind ; is sometimes called sunstroke, especially when due to the heat of the rays of the sun ; is characterized by vertigo, headache, gradual accession of listlessness with a desire to lie down. Sudden and complete insensibility may come on, without the power of sensation or motion, rapid breathing, convulsions, and coma. Death is either by syncope, apnea, or a combination of the two.

Treatment : Endeavor to reduce the bodily temperature by removing the clothes, sprinkle the patient with water, cold cloths to head, hot cloths to feet. Antipyrin may be given. Bleeding may be resorted to in robust subjects. After the high temperature is brought down give alcohol and diffusible stimulants, hypodermically if necessary.

13. *Hemorrhages. Pulmonary Hemorrhage* : If severe, raise the thorax, and quiet the patient with an opiate if necessary. Give fifteen grains of gallic acid every fifteen minutes, and from five to ten grains of ergotin hypodermically two or three times a day. Ice bags may be applied to the chest, and as a last resort a ligature may be thrown around the larger limbs, cutting off the return of blood by the veins, and thus withdrawing blood from the lungs. (Tyson.)

Hemorrhage from the Stomach or the Bowels : If from cirrhosis it is a capillary oozing, and will generally stop of itself. May be controlled by ten or fifteen grains of tannic acid. If from typhoid fever, treat on the same plan as the pulmonary hemorrhage. If from ulcer in the stomach, treat on the same plan as the pulmonary hemorrhage.

14. *Hiccough*—a clonic spasm of the diaphragm, accompanied by a quick inspiratory effort, interrupted by a closure of glottis, followed by a short expiration—is uncontrollable if occurring in advanced fatal diseases.

Treatment : Acid drinks, cold douches, ether or chloroform internally, externally, or by inhalation, musk, opium, and antispasmodics.

15. *Hysteria*. (Ranney.) The diagnosis of hysteria is almost invariably made by the exclusion of more serious conditions which the symptoms exhibited by the patient might lead the

physician to strongly suspect. The convulsive types form the subject of this sketch.

Treatment: The paroxysms are controlled by the inhalation of ether or chloroform. If this is contraindicated give monobromide of camphor. If this is not at hand, give musk, valerian, assafetida, or the bromides. Hypodermic morphine and atropine are also beneficial in convulsive seizures.

16. *Lightning stroke.* In many cases death is instantaneous. In other cases the external injuries consist of burns, contusions, wounds, or fractures. These are to be treated according to circumstances. Ruptures of internal organs may be produced, and hemorrhages from nose, ear, and mouth may occur. The loss of consciousness may be temporary or continue until death. Convulsive movements are not uncommon. After a severe stroke the patient usually sinks rapidly into a state of collapse. The skin is pale and cool, the pulse rapid and feeble, sometimes irregular, the respiration hurried and labored, the eyes fixed, and the pupils dilated. Sometimes, however, the pulse is slow, and rarely the pupils are contracted. Vomiting and nausea sometimes occur. Paralyzes of all kinds are found, sometimes involving all the limbs, sometimes only some peripheral nerve; paralysis of the third nerve is not rare. Dysphagia, aphoni, and hiccough are rare. Amblyopia or amaurosis is not uncommon, and often temporary. Deafness is a frequent symptom, often due to perforation of the membrana tympani.

A certain amount of paralysis, deafness, and at times some mental trouble, may remain permanently.

In women who are struck during the menstrual period menstruation may cease. In women who are pregnant abortion or premature delivery may or may not occur.

Treat as you would a case of shock.

17. *Neuralgic Pains*, such as intercostal neuralgia, sciatica, etc., may become very urgent on account of the great pain and the mental distress. They are best treated by a hypodermic injection of morphine and atropine at once, to be followed by other treatment as indicated by the symptoms.

18. *Palpitations* of the heart due to functional troubles are best treated during the paroxysms by the internal administration of digitalis, stimulants, and anodynes. If due to hysteria, tincture of valerian is good. A hypodermic injection of morphine and atropine often gives quickest relief.

19. *Pernicious Fevers* should be treated by hypodermic injections of quinine in large doses. Other symptoms should be treated according to circumstances.

20. *Placenta Previa.* The placenta is said to be previa when it is attached to any portion of the lower uterine segment. Varieties: Central, partial, marginal, lateral.

Treatment: Prior to seventh month, expectant. After seventh month, induction of premature labor by forced dilatation of cervix and combined version. The breech should be brought down, as it controls the hemorrhage and does not cut off the blood supply to the fetus. Use the right hand internally, as the smallest segment of the placenta is usually on the left side.

In the central variety perforate the placenta if necessary. (Norris.)

21. *Puerperal Convulsions.* (Norris.) Due to hysteria, epilepsy, tumors of the brain, meningitis, profound anemia following *post partum* hemorrhage, apoplexy, or reflex disturbances.

Treatment: Preventive—restrict to a milk diet, give diuretics, cathartics to prevent constipation; avoid the taking of colds. Curative—if the os is dilated, terminate the labor with forceps or by version. If the convulsions occur early, and the os is not dilated, wait until partial dilatation occurs, and complete the delivery by combined version and extraction. During the spasms, inhalation of chloroform. In the intervals, morphine, elaterium, croton oil, venesection, veratrum viride, an enema of the bromide of potash, and hydrate of chloral, or a hot bath, 100° F. or more.

22. *Post Partum Hemorrhage.* (Norris.)

Treatment: Prophylactic—as soon as head is born inject into thigh a syringeful of ergot, properly manipulate the uterus and apply binder. Curative—always have ready, water

120°, empty basin, vinegar, ice, clean handkerchief, ergot, hypodermic syringe.

The indications are : (1) Control the hemorrhage, and (2) treat the after-condition.

The first indication is met by the following in the order given :

External stimulation of uterus.

Carry the other hand into the uterus and remove any clots, placenta, etc.

Ice internally and externally.

Handkerchief soaked in vinegar squeezed at the fundus.

Hot water.

Electricity.

Intra-uterine tampon of iodoform gauze.

The second indication calls for :

Hypodermic ether.

An enema of hot water.

Milk, whisky, coffee, frequently in small doses.

Transfusion of salt water.

23. *Poisoning.** Provoke vomiting by giving warm water with or without ground mustard (a tablespoonful to a pint of water), or ipecac (a teaspoonful of the powder or a tablespoonful of the syrup), or a finger may be thrust down the throat. It is best to give large quantities (that is, a pint at a time), of warm water whenever vomiting is to be excited.

Give bland liquids, such as milk, raw eggs, some sort of oil, gruel, etc.

Give stimulants, tea, coffee, whisky, wine, hartshorn and water (a teaspoonful in a teacupful of water at a dose).

Give the proper antidote to the poison taken. It is not always necessary to wait for it to dissolve, but it may be stirred in any fluid at hand (except oil) and swallowed immediately.

Alkaline antidotes most likely to be at hand are hartshorn and water, soap and water ; lime, whiting, soda, chalk, tooth-powder, plaster, whitewash, magnesia, and wood ashes. Acid antidotes most likely accessible are vinegar and lemon juice.

In poisoning from gases, stimulate, give fresh air, and use artificial respiration.

* After the Medical News Visiting List.

In poisoning from decayed meat or vegetables, provoke vomiting, give a purgative, and give powdered charcoal.

Keep in mind that the antidote for nitrite of silver is strong salt and water; for iodine, starch and water; phosphorus, sulphate of copper; acetate of lead, Epsom salts; arsenic, hydrated oxide of iron; carbolic acid, Epsom salts; opium and chloral, *keep up the breathing*; strychnine, chloral, mercury, and antimony; an infusion containing tannic acid; copper salts, albumen.

24. *Shock.* Signs: pallor, coldness, weakness, even amounting to utter prostration. Consciousness may or may not be seriously affected. Temperature sinks from 1° to 4° or more. Pulse is thread-like; respiration, sighing; nausea, vomiting. Patient may be noisy, delirious, or quiet. Shock may endure for many hours and at last prove fatal, or death may result almost instantaneously.

Treatment: Warmth, hot-water bottle to feet, flanks, and epigastrium, warm affusion to the head; horizontal position, frictions, stimulants; brandy, ammonia, galvanism to precordia. In shock from hemorrhage, treat the hemorrhage. When reaction has commenced food must be given in small quantities frequently repeated. In a case of shock from injuries to the abdominal viscera the writer gave atropine and morphine hypodermically with great benefit.

25. *Strangury.* Vesical, hypodermic injection of morphine, to be followed by other remedies; rectal enemata of starch water and laudanum, to be followed by a hot sitz bath.

26. *Syncope.* The cardiac failure is commonly referable to causes, mental or physical, operating through the nervous system; the heart becomes more or less completely paralyzed, and contracts feebly or not at all on its contents.

Treatment: Place the patient in a horizontal position, loosen the clothing around the neck and elsewhere, and give the patient fresh air; ammonia to the nostrils, ammonia, ether, or alcohol by the mouth, turpentine by enema, cold water to the face, sinapisms to the epigastrium and limbs. Frictions, galvanism, and artificial respiration may become indicated. Maintain the bodily temperature, keep patient quiet, and give him nourishment if the syncope assumes a chronic form.

27. *Vomiting.* In acute cases of vomiting it may be well to suspend all food for a time. Then when food is given it is well to commence with a small quantity of the blandest food, milk being one of the best. Among the remedies for vomiting the following are the best: Cracked ice, to be swallowed in small morsels, effervescent natural waters, counter-irritation over the stomach by sinapisms, reflex irritation over the spine in the cervical region by blisters. Dilute hydrocyanic acid, 1 to 4 minims hourly; wine of ipecac, 1 minim every hour; calomel, $\frac{1}{10}$ grain on the tongue every hour; Fowler's solution, 1 minim every hour; morphine, $\frac{1}{10}$ grain on the tongue every hour; bismuth subnitrate, 5 to 10 grains, and bicarbonate of soda, 5 to 10 grains.

In vomiting due to cerebral and peripheral conditions an attempt should be made, if possible, to remove the cause. (Withington.)

The physician should have an emergency case handy, which ought to contain a hypodermic syringe; a stomach tube, a catheter, (Nelaton's), hypodermic tablets (morphine, $\frac{1}{8}$ grain, atropine, $\frac{1}{100}$ grain, pilocarpin, $\frac{1}{16}$ grain, nitro-glycerine, $\frac{1}{100}$ grain), and the following drugs: Epsom salts, dialysed iron, gallic acid, aromatic spirits ammonia, nitrate amyl, ergot (fluid extract), digitalis (tincture), spirits turpentine, whisky, mustard (powdered), croton oil, chloroform, ether, antipyrin, bromide potash, chloral hydrate, quinine sulphate, sulphate copper, and aqua ammonia.

Other remedies may be added by the physician to the contents of his emergency case, as he thinks fit. Parke, Davis & Co. of Detroit, Mich., furnish an emergency case at ten dollars. It is very complete, and the handiest case I know of.

PEROXIDE OF HYDROGEN AND OZONE.

Their Antiseptic Properties.

DR. PAUL GIBIER,

Director of the Pasteur Institute of New York.

Read before the International Medical Congress, held at Berlin, Germany, on the 7th of August, 1890. Published by *Medical News* of Philadelphia, October 25, 1890. Pp. 416-418.

GENTLEMEN—Since the discovery of Peroxide of Hydrogen by Thenard, in 1818, the therapeutical applications of this oxygenated compound seem to have been neglected both by the medical and the surgical professions; and it is only in the

last twenty years that a few bacteriologists have demonstrated the germicidal potency of this chemical.

Among the most elaborate reports on the use of this compound may be mentioned those of Paul Bert and Regnard, Baldy, Pean and Larrive.

Dr. Miguel places Peroxide of Hydrogen at the head of a long list of antiseptics, and close to the silver salts.

Dr. Bouchut has demonstrated the antiseptic action of Peroxide of Hydrogen, when applied to diphtheritic exudations.

Prof. Nocart, of Alfort, attenuates the virulence of the microbe symptomatic of carbuncle, before he destroys it, by using the same antiseptic.

Dr. E. R. Squibb,* of Brooklyn, has also reported the satisfactory results which he obtained with Peroxide of Hydrogen in the treatment of infectious diseases.

Although the above-mentioned scientists have demonstrated by their experiments that Peroxide of Hydrogen is one of the most powerful destroyers of pathogenic microbes, its use in therapeutics has not been as extensive as it deserves to be.

In my opinion the reason for its not being in universal use is the difficulty of procuring it free from hurtful impurities. Another objection is the unstableness of the compound, which gives off nascent oxygen when brought in contact with organic substances.†

Besides the foregoing objections the surgical instruments decompose the peroxide, hence, if an operation is to be performed, the surgeon uses some other antiseptic during the procedure, and is apt to continue the application of the same antiseptic in the subsequent dressings.

Nevertheless, the satisfactory results which I have obtained at the Pasteur Institute of New York with Peroxide of Hydrogen, in the treatment of wounds resulting from deep bites, and those I have observed at the French clinic of New York, in the treatment of phagedenic chancres, varicose ulcers, parasitic diseases of the skin, and also in the treatment of other

* *Gaillard's Medical Journal*, March, 1889.

†The Peroxide of Hydrogen that I use is manufactured by Mr. Charles Marchand, of New York. This preparation is remarkable for its uniformity in strength, purity and stability.

affections caused by germs, justify me in adding my statement as to the value of the drug.

But, it is not from a clinical standpoint that I now direct attention to the antiseptic value of Peroxide of Hydrogen. What I now wish is merely to give a full report of the experiments which I have made on the effects of Peroxide of Hydrogen upon cultures of the following species of pathogenic microbes: *Bacillus anthracis*, *bacillus pyocyaneus*, the bacilli of typhoid fever, of Asiatic cholera, and of yellow fever, *strep-tococcus pyogenes*, *micro-bacillus prodigiosus*, *bacillus megaterium*, and the *bacillus* of osteomyelitis.

The Peroxide of Hydrogen which I used was a 3.2 per cent. solution, yielding fifteen times its volume of Oxygen; but strength was reduced to about 1.5 per cent., corresponding to about eight volumes of Oxygen, by adding the fresh culture containing the microbe upon which I was experimenting. I have also experimented upon old cultures loaded with a large number of the spores of the *bacillus anthracis*. In all cases my experiments were made with a few cubic centimetres of culture in sterilized test-tubes in order to obtain accurate results.

The destructive action of Peroxide of Hydrogen, even diluted in the above proportions, is almost instantaneous. After a contact of a few minutes, I have tried to cultivate the microbes which were submitted to the peroxide, but unsuccessfully, owing to the fact that the germs had been completely destroyed.

My next experiments were made on the hydrophobic virus in the following manner:

I mixed with sterilized water a small quantity of the medulla taken from a rabbit that had died of hydrophobia, and to this mixture added a small quantity of Peroxide of Hydrogen. Abundant effervescence took place, and, as soon it ceased, having previously trephined a rabbit, I injected a large dose of the mixture under the *dura mater*. Slight effervescence immediately took place and lasted a few moments, but the animal was not more disturbed than when an injection of the ordinary virus is given. This rabbit is still alive, two months after the inoculation.

A second rabbit was inoculated with the same hydrophobic virus which had not been submitted to the action of the peroxide, and this animal died at the expiration of the eleventh day with the symptoms of hydrophobia.

I am now experimenting in the same manner upon the bacillus tuberculosis, and if I am not deceived in my expectation, I will be able to impart to the profession some interesting results.

It is worthy of notice that water charged, under pressure, with fifteen times its volume of pure oxygen has not the antiseptic properties of Peroxide of Hydrogen. This is due to the fact that when the peroxide is decomposed nascent oxygen separates in that most active and potent of its conditions next to the condition, or allotropic form, known as "Ozone." Therefore it is not illogical to conclude that ozone is the active element of Peroxide of Hydrogen.

Although Peroxide of Hydrogen decomposes rapidly in the presence of organic substances, I have observed that its decomposition is checked to some extent by the addition of a sufficient quantity of glycerine; such a mixture, however, cannot be kept for a long time, owing to the slow but constant formation of secondary products, having irritating properties.

Before concluding I wish to call attention to a new oxygenated compound, or rather ozonized compound, which has been recently discovered and called "Glycozone" by Mr. Marchand.

This Glycozone results from the reaction which takes place when glycerin is exposed to the action of ozone under pressure—one volume of glycerine with fifteen volumes of ozone produces Glycozone.

By submitting the bacillus anthracis, pyocyanous, prodigiosus, and megaterium to the action of Glycozone, they were almost immediately destroyed.

I have observed that the action of Glycozone upon the typhoid fever bacillus, and some other germs, is much slower than the influence of Peroxide of Hydrogen.

In the dressing of wounds, ulcers, etc., the antiseptic influence of Glycozone is rather slow if compared with that of

Peroxide of Hydrogen, with which it may, however, be mixed at the time of using.

It has been demonstrated in Pasteur's laboratory that glycerin has no appreciable antiseptic influence upon the virus of hydrophobia; therefore, I mixed the virus of hydrophobia with glycerin and at the expiration of several weeks all the animals which I inoculated with this mixture died with the symptoms of hydrophobia.

On the contrary, when glycerin has been combined with ozone to form Glycozone, the compound destroys the hydrophobic virus almost instantaneously.

Two months ago a rabbit was inoculated with the hydrophobic virus, which had been submitted to the action of this new compound, and the animal is still alive.

I believe that the practitioner will meet with very satisfactory results with the use of Peroxide of Hydrogen for the following reasons:

1. This chemical seems to have no injurious effect upon animal cells.
2. It has a very energetic destructive action upon vegetable cells—microbes.
3. It has no toxic properties; five cubic centimetres injected beneath the skin of a guinea pig do not produce any serious result, and it is also harmless when given by the mouth.

As an immediate conclusion resulting from my experiments, my opinion is, that Peroxide of Hydrogen should be used in the treatment of diseases caused by germs, if the microbial element is directly accessible; and it is particularly useful in the treatment of infectious diseases of the throat and mouth.

Notwithstanding the large number of Hypophosphites on the market it is quite difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including iron, quinine, and strychnine, etc., in *perfect solution*, and is not liable to the formation of fungous growths.

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

SURGICAL CLINIC

At Memphis Hospital Medical College, December, 1890.

Cystoma Inferior Maxilla, exsection—Fibroma Superior Maxilla, excision—Herniotomy—Melano Sarcoma—Stricture, perineal section—Internal and external urethrotomy.

W. B. ROGERS, M.D.
Professor of Surgery.

Reported by I. H. EDGINGTON, First Clinical Assistant.

Case I. Cystoma inf. maxilla ; exsection. Fr. G., 29 years of age, female, colored, presented an enlargement size of small orange on right half of body of lower jaw, involving that portion of bone extending from canine tooth to angle of jaw. The tumor was rounded, very dense to digital pressure both through the mouth and externally, except at one point on external surface where it was soft and apparently cystic. No crackling sound or feel was elicited. The mucous membrane was normal in appearance. Several teeth were missing from upper surface of oral aspect of the tumor, which was seen to involve the entire thickness of the body of the bone, expanding to a thickness of two and one-half inches. She complained of a great deal of pain in the growth, which had attained the greater part of its size within the past year. The tumor began six years ago, as a swelling at site of an aching tooth which was broken off in attempts at extraction, the root still remaining. Clearly the tumor was not epulis, and the elastic point on outer surface suggested cystic character ; the remaining portion, however, was as hard as an osteoma. The diagnosis of cystic tumor was made.

Operation. Skin incision five inches long. Bone cut at angle and between incisor and canine teeth. Tumor removed. Hemorrhage controlled by ligatures and torsion except the

bleeding from bone, which was so free that actual cautery was applied. Patient stood operation well and was sent to the ward.

Case II. Fibroid tumor of left superior maxilla ; excision. Patient, Hudson B., 14 years, male, black, presented a tumor of five years existence, but which had attained the greater part of its size within the past two years. The growth involved the left upper jaw, presenting a very great deformity, protruding at least three inches forward, while superiorly it pressed visibly upon the orbital fossa. The left nasal cavity was completely occluded and the oral cavity was so encroached on that mastication of solid food was next to impossible. Several of the cuspids were scattered along the lower border of the tumor, but all outline of the alveola had disappeared. It was noted that the canine tooth of that side was wanting, but the parent explained that it had been extracted by the family physician. There was no ulcerated or inflamed patch visible. No pain was complained of, nor was there any tenderness detected, even on very firm pressure, made at numerous points. To the touch the tumor was extremely hard, impressing the idea that it was due to hypertrophy of the osseous tissue, probably brought about by an inverted tooth. There was no sign of a cyst in connection with the growth, hence it was pronounced a solid tumor, either osseous or fibrous in structure, probably the former. There was no glandular involvement nor other signs of malignity ; the patient's general health good, hence excision of the mass was pronounced the proper operation.

Operation. Patient fully anesthetized. Langenbach's incision was made and flap turned back. Free hemorrhage necessitated the liberal use of hemostatic forceps. The bone forceps were then applied at floor of left nostril, cutting roof of mouth, and near inner angle of orbit but below the floor of that cavity, cutting the nasal process of sup. maxilla. At this juncture there was found a small crevice between the growth and malar bone, into which crevice a bone elevator was pressed and the tumor pried out, leaving behind the smooth surface of posterior wall of antrum, which limited the tumor, though pressed back well into pterygoid region. The floor of orbit was not

removed, but the outer wall of nasal cavity had completely disappeared, leaving only the Schneiderian membrane flapping in and out at each respiration. There was literally no blood supply to the tumor proper, which appeared to be a genuine simple fibroma, which had originated in the antrum and by pressure expanded that cavity and caused absorption of its walls. The cavity was packed with gauze and the flap replaced and held in situ by silkworm gut sutures. Ten days later the patient was sitting up and rapidly convalescing.

Case III. Inguinal hernia, sac filled with blood; herniotomy. Jake G., male, 37 years of age, presented well-marked inguinal hernia of left side. General health had always been excellent. The hernial mass had not extended into scrotum for years, but had been fixed just in front of os pubis and irreducible for at least six years. Usually gave no trouble; did not attempt to wear any truss. Four weeks ago while lifting a firelog, felt a slight pain in hernia followed immediately by very great increase of size of hernia; apparently coming down and filling the scrotum to size of large cocoanut. No fever; no strangulation nor pain followed, nor was he very much inconvenienced by this sudden increase in size of hernia. Bowels moved regularly and he continued his daily work. Examination showed a very hard tumor within the scrotum; irreducible, painless. The neck of the tumor was very dense; the body slightly elastic. There was flatness on percussion, the color of the skin (black) precluded translucency. It was argued that so sudden a formation of so large a hernia ought to have been followed by symptoms of strangulation. A hypodermic syringe was used to explore the elastic portion of the growth, and a syringe full of blood, dark, was drawn out. It was clearly a hemorrhage into the hernial sac.

Operation. An incision was made the full length of the tumor, and a pint of dark blood containing many clots poured out. The hernia proved omental, a large piece of which was impacted in the canal, where it had firmly grown, having doubtless been there for many years. It was explained that no better result in the way of a radical cure could be asked than the plugging by this large mass of omental tissue. The ends of the omental mass were ligatured and excised. A por-

tion of the hernial sac was cut away; the remainder packed with gauze, wound dressed and patient sent to bed.

Two weeks later patient presented to class, wound healing nicely.

Case IV. Melano sarcoma; extirpation. George G., male, 37 years, presented a growth the size of English walnut, movable, with no enlargement of veins or of lymphatics adjacent. The growth was situated beneath the mucous membrane in the left buccinator region, bulging on the cheek, and proving besides a disfigurement, quite an inconvenience in speaking. To the feel the tumor was slightly doughy, and yet there was sufficient elasticity to arouse suspicion of a cystic growth. Diagnosis was reserved.

Operation. Incision made on the mucous aspect, and the tumor, beautifully encysted, was pulled out, or rather enucleated, with handle of knife. No anesthetic was used. The bleeding, though quite free, was controlled by packing the wound cavity with gauze. Patient did well; returned at end of week with wound healed.

Microscopical examination showed the growth to be sarcoma of melanotic variety.

Case V. Stricture of urethra; internal and external urethrotomy. Albert Br., 26 years, gave the usual symptoms of a gradually contracting strictured urethra, and presented himself with bladder tightly distended with urine, which he was unable to pass. His physician had aspirated the bladder the day before and sent him to the clinic for permanent relief.

Operation. Anesthetic was administered, and after some time in searching, the bladder was reached with filiform guide, over which Rogers' urethrotome was passed and the floor of membranous urethra cut through. This portion of the canal was contracted in its entire length. Another stricture, calibre 14 French, was detected just in advance of the bulb, and the urethra incised in its roof. A large grooved staff was then inserted and perineal section made. A No. 36 steel sound then passed readily the entire length of the bladder. Catheter was then introduced, and bladder emptied and irrigated with hot water. Patient sent to bed.

Case VI. Stricture of urethra; internal and external urethrotomy. Patient, Ody T., 34 years, was sent from Mississippi for treatment of stricture. Examination with urethrometer showed urethra with calibre equal No. 20 American. Three inches from meatus a stricture, calibre 10, while perineal urethra barely measured No. 6, American size, and was corded and hard to the touch externally. There were symptoms of an inflamed bladder; frequent desire to pass water, which contained some pus cells. There were no elements in the urine indicative of kidney implication. Boracic acid, five gr. every four hours, had been given for two days.

Operation. Patient was anesthetized, and Rogers' urethrotome passed, bulb formed, and during withdrawal stricture in perineal urethra incised. A staff was then passed to bladder, patient put in lithotomy position and perineal section of full length of membranous urethra made. The stricture was thus divided its full length and a No. 20 sound was passed from meatus to bladder. Patient sent to bed.

Three days later a No. 20 sound was introduced without any trouble, and one week later patient was sitting up and doing nicely.

GUNSHOT WOUND OF ABDOMEN—LAPAROTOMY.

J. D. SHINKEL, M. D., FRIAR'S POINT, MISS.

R. J., colored, aged about 24 years, shot with a 38 calibre revolver about 6:30 P.M., Saturday, October 26, 1890. Bullet entered $2\frac{1}{2}$ inches above umbilicus, and about $1\frac{1}{2}$ inches to left of mesial line of anterior wall of abdomen. Direction of bullet, backward and slightly inclined toward mesial plane.

Patient was brought across the river in a skiff and walked unaided to place of operation, which was three-quarters of a mile from point of landing. I saw him about 8 P.M. Found him suffering from shock, walls of abdomen retracted and hard, patient doubled forward and vomiting. Gave him $\frac{1}{2}$ gr. morphia and left several powders of same to be given as required. Patient did very well during the night, and when I saw him next morning he was much easier and entirely free from pain. Respiration, 20 to the minute, pulse 100. At 9 A.M. I operated on him, assisted by Dr. J. J. Slack and Mr.

D. Semmes. Chloroform was given. An incision 4 inches long was made in the mesial line, extending from below the ensiform cartilage to and around the umbilicus. As soon as cavity was opened intestinal gases escaped, and when a larger opening was made the cavity was found to contain a large amount of fecal matter. The intestines were drawn out and examined and four perforations were found in small intestines. One was a large longitudinal rent and required eleven stitches to close; the others were circular wounds. They were all closed with surgeon's intestinal silk by the Lembert suture. The cavity was thoroughly flushed with hot water and intestines returned, and wound of operation closed by deep and superficial sutures. A glass drainage tube was inserted through bullet wound. Operation required one hour and a half.

Patient recovered from anesthetic with very little evidence of shock; pulse 110 and respiration 20 and easy. Several small clots of blood were found in cavity, but hemorrhage from wound and from operation was very little. At 9 p.m. of same day drew patient's urine. During night patient got out of bed twice to pass urine. At 9 p.m. pulse had fallen to 100 and was full and strong. Pulse remained at about 100 until the 29th, when it decreased to 85, at same time temperature was normal. On the 30th pulse 78, temperature normal. On 31st pulse 100, temperature 100.5. November 1 pulse 100, temperature 101.5. Washed out cavity with a weak carbolized solution and two hours afterward temperature was 99. On the fourth day after operation bowels moved spontaneously. Patient was allowed nothing by mouth for four days. Thirst was quenched by enemas of water with little salt added. After fifth day patient was allowed milk and chicken broth alternately every two hours. Bowels were moved several times by enema and urine was passed freely until November 7, when a catheter was used and continued until time of death, on morning of November 10, at 2 a.m. There was an entire absence of abdominal tenderness for the first five days. On the sixth day patient commenced having chills, which recurred every day about 4 p.m. Quinine was given hypodermically and afforded relief for a few days. On the twelfth day after the operation chills recurred and qui-

nine, which had been continued, was given in increased doses, but had no perceptive effect. On November 9, at 9:30 A.M., patient was doing very well, pulse 92, temperature 100. At 11 A.M. I called on him again and found him suffering from a severe chill. Chill continued for one hour and a half. There was very little fever afterward. From this time patient gradually sank, until 2 A.M. November 10, when death took place.

Post mortem showed all intestinal wounds perfectly united, adhesions were extensive and pus was diffused throughout the cavity. The center of adhesion seemed to be at point where the bullet perforated posterior fold of peritoneum. Drainage tube was removed on tenth day. Patient had been suffering from a malarial attack for several weeks before he was shot. Antiseptic precautions were used as thoroughly as possible in a very unfavorable place for operating.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

HINTS IN GYNECOLOGICAL PRACTICE.

M. YARNALL, M.D., ST. LOUIS, MO.

In all great communities the practice of medicine drifts toward specialties.

Practitioners obtaining a reputation in any particular department or line of practice confine themselves sooner or later to it; unfortunately the specialist in many instances devotes himself to local treatment, forgetting the general condition; particularly is this true of those educated as specialists.

On the other hand, the general practitioner on undertaking a speciality often ignores, to a greater or less degree, topical treatment.

However at the present time a broader view is gradually being manifested, and the general as well as the local condition is being considered.

Perhaps in no department has more controversy been found than in gynecology.

It is probable that menstruation and its irregularities will never be controlled to the same extent as are the bowels and their functions, and the difficulty in finding drugs that would influence the uterine system in a like manner has induced practitioners to ignore general treatment, which in the majority of cases is more essential than local.

In a system of organs where a multitude of functional activities are so delicately adjusted as in the case of the female generative system, a destruction of equilibrium may be determined by a variety of exciting causes; the exalted nervous sensibilities in females of the more enlightened nations have tended greatly to develop the neurasthenia of uterine diseases.

A large proportion of these reflex disorders occur during or immediately after puberty, and may exhibit peculiarities indicating serious systemic disturbances, and some are so intimately associated with these organs as to be cured by remedies directed to them, both general and local. Insomnia, headache, neuralgia, hysteria in its various forms, and numerous other ailments have been repeatedly shown to have their origin in the sexual organs.

The pathological conditions of morbid uterus modify the process of organic life, and through the sympathetic nervous system by direct or reflex action control in a manner the process of assimilation.

There can be no question that inanition is a most important cause of uterine disease, and we usually observe associated with and often caused by, this chronic starvation, a general condition of neurasthenia and debility. With the debility comes an undue softening of all the muscles of the body, including the uterus; and with the neurasthenia there are aches and pains in all the important nerve centers. Whether we call it a want of nervous tone, inanition, or undue softness, it makes but slight difference; the question is, what treatment shall be adopted?

Constipation is almost universally present in women, and it deserves special consideration in treating all uterine disorders; the nervous system must be cared for, and bad habits of whatever nature corrected as far as possible.

Pain being the prominent symptom in most uterine troubles, and remedies being at hand and reliable, the indications are clear and the treatment simple. In execution, however, it is not a simple problem; immediate relief is not alone to be considered. If opiates be resorted to for frequently recurring pain, a habit will soon be formed that is no less a calamity than the disease. While, therefore, opium and its preparations are reliable remedies, and in many cases indispensable, they should be administered as seldom and as sparingly as possible.

In all cases of uterine trouble the necessity for a thorough examination is apparent. By touch, single and bimanual, by the speculum, and by the uterine sound, the condition of all the pelvic organs should be investigated. Such an examination is often as valuable for its negative as for its positive results, and no practitioner fulfills his duty to his patient or is just to himself who treats any case of uterine trouble for any length of time without making such examination.

But the principal treatment in the majority of uterine cases is the tonic treatment. This may be hematic, stomachic and nervous—either or all. Iron stands at the head of the list. It is not only an hematic, and in proper conditions a promoter of digestion, but it decidedly augments pelvic congestion and therefore has an emmenagogue effect. The forms at command are so numerous as to meet the requirement of any case, yet the old-fashioned muriated tincture of iron is still perhaps unsurpassed when borne without discomfort. With iron may be combined *nux vomica* or *strychnia* and quinine, and in our country, in a large section of which malaria is such a constantly acting depressant, the latter may be given with a free hand.

Uterine disturbances, for the sake of distinction, are divided into different classes, yet they to a great extent are dependent upon the same cause, uterine inertia.

Amenorrhea, except in cases of congenital atresia, dysmenorrhea, both congestive neuralgic and membranous, although the obstructive form may require surgical interference.

Menorrhagia, where it is not dependent upon other than uterine troubles, displacements, polypi, and fibrous growths;

and abortions, unless due to some specific taint, each and all may be greatly benefited by a judicious tonic treatment.

Viburnum prunifolium has long been noted for its beneficent effect on the uterine system. With this as a basis, the combination entitled *Dioiviburnia* has earned for itself an enviable reputation. With it may be combined any of the remedial agents calculated to meet special indications. As a uterine tonic it is in itself unequalled. It not only aids digestion and strengthens the general system, but directs its action especially to the uterus and its appendages, restoring the relaxed condition that superinduces leucorrhea, displacements, etc., and mollifying the aches and pains, and the various and complicated nervous manifestations that are so distressing in all cases of uterine troubles.

Too much cannot be said of the judicious use of electricity, which is applicable to such a variety of disorders.

It is scarcely in the province of this paper to enter into details; it may be said, however, that its use is beneficial in connection with almost any rational course of treatment that may be adopted.

Castration in Women.

Dr. Keppler had removed the ovaries in forty-six women. He obtained thirty-nine complete cures, of which, in the greater number, the results were followed for a number of years. The following are the principal physiological conclusions arrived at: (1) After operations performed for a salpingitis or an inflammatory process, there had never followed a flow of blood from the uterus. (2) The conjugate diameter had become progressively shortened, and more especially so when the woman was young; this shortening may reach three centimetres. (3) The uterus had gradually diminished in volume (from eight centimeters to two in the course of years); the vagina is much shorter and more narrow; its mucous membrane has become more pale and the labia major more slender. (4) The breasts have become atrophied and resemble those of a man. (5) The pigmentation of the nipples, of the perineum, and of the anus, has disappeared, as well as the pathological pigmentation (*chloasma*). The skin has become of a remarkable whiteness. (6) The tendency to general *embon-*

point has not increased. (7) There has been no modification in either of the hair nor of the voice. (8) The sexual appetite has remained the same, and is, if anything, more marked in those cases where the operation has been performed near the appearance of the menses. (9) The operation is not an obstacle to marriage; three of his patients have married happily some years since. (10) In those women operated upon during youth for inflammatory affections, one does not notice as a result those numerous troubles which we frequently find in women operated upon for uterine fibroids at a more advanced age. (11) Hemorrhages due to uterine fibroids are favorably influenced by castration, but the menopause never follows immediately afterward. (12) Women operated upon for uterine fibroids, when well advanced in life, completely lose their sexual appetite.—*London Medical Recorder.*

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

A REPORT
Of Twenty-five Cataract Extractions, With Remarks.

JAMES L. MINOR, M. D., MEMPHIS, TENN.

I have collected the notes of twenty-five consecutive cases of cataract operated upon by me in the past few years. The first eleven cases were treated at the New York Eye and Ear Infirmary during my connection with that institution*; the remainder—fourteen cases—were treated in Memphis. Of the 25 cases operated upon, 13 men and 5 women were white; 3 males and 4 females were colored.

The oldest was 82 years; the youngest, 41; the average, 63. The results were uninfluenced by age.

The general health was good or fair in all.

The cataract was mature in 22 cases, and hypermature in 3. Equally good results were obtained in the two conditions.

*The reports of these cases were copied from the records of the New York Eye and Ear Infirmary, for me, by the then House-Surgeon, Dr. F. N. Lewis.

The right eye was operated upon in 12 cases, and the left in 13.

The greatest duration of cataract was 23 years; the shortest, 6 months; the average, 2 years.

All eyes were flushed with a saturated solution of boric acid before the operation. No other antiseptic precautions were practiced at this time further than scrupulous cleanliness.

Preliminary iridectomy, with trituration of the lens, was practiced in 4 cases—good results being obtained.

With that exception, the operation known as Graefe's modified linear extraction was employed in all cases.

A good free iridectomy was obtained in every instance.

Peripheral cystotomy was performed in 18 cases; T-shaped in 6, and vertical in 1.

The lens was dislocated during the cystotomy in 2 cases, with slight loss of vitreous, and delivery was effected with a spoon in each instance, giving good results.

Vitreous escaped in two other cases, in one of which the lens was removed with a spoon, and good results obtained.

One case was operated upon without an anesthetic; ether was employed in 2, chloroform and ether in 1, and cocaine in 21*.

The compress bandage was employed in all cases, and, in most instances, it was continued as long as it was desired to keep the lids closed, or about a week, when a shade was substituted. In a few cases where the bandage was uncomfortable it was removed altogether, and the lids closed with isin-glass plaster and the eyes protected with a wire-cloth shade.

It has always been my habit to dust pulverized boric acid freely over the pad which lies next the eye and underneath the cotton compress, when applying the compress bandage. The moisture which escapes from between the lids dissolves the acid as it does so, and in that way an aseptic condition is kept up.

The healing process was normal in 17 cases.

*It may be interesting to know that case No. 5 in this exhibit was the first cataract extraction performed in the United States under the influence of the, then, new anesthetic, muriate of cocaine. See *New York Medical Record*, October 18, 1884. (The table, which appeared in full in the original article, is omitted in this reprint.)

Iritis, about the fifth day, occurred in 7 cases. This yielded readily to treatment in all but 1, in which a dense pupillary membrane formed.

The wound opened on the fifth day in 1 case, but healed and gave a good result under proper treatment.

A mild form of insanity appeared on the third day in 1 case, which was probably dependent upon the new surroundings, the confinement, the maintenance of the recumbent posture, and the bandage, for it all disappeared when these conditions were rectified.

The average duration of treatment was 14 days.

A secondary operation was performed in 7 cases—6 having had peripheric, and 1 vertical, cystotomy.

Four cases were to return for a secondary operation, but failed to report.

Twenty-four cases had useful vision restored, and a large percentage of these saw almost as well as they had ever done.

One case only was not benefited by the operation, for a dense membrane occupied the pupil and coloboma. Useful vision could probably have been restored by a secondary operation, but the patient did not return for it.

3	cases	had	vision	of	20
3	"	"	"	"	20
2	"	"	"	"	20
4	"	"	"	"	20
6	"	"	"	"	20
4	"	"	"	"	20
2	"	"	"	"	20
1	"	"	"	"	P.L.

—*Arch. Oph.*, Vol. XX, No. 1.

A special Committee on Therapeutics of the British Medical Association instructed to examine into comparative action of hypnotics, reported as follows on Chloralamid :

"In one case twenty grains, and in six cases thirty grains, were given in single doses. After the twenty grains, sleep came on in twenty minutes and lasted three hours with half an hour's interval of waking; after thirty grains, sleep came on in fifteen minutes to half an hour (four cases), one to two hours (two cases). Sleep lasted all night in three cases, in two cases four and five hours, and in one case there was two hours dozing, then an interval of wakefulness, and then two hours sleep. No disagreeable after-effects were observed."—*Brit. Med. Jour.*

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Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this.

Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

WM. KRAUSS, M.D., Business Manager.

Memphis, Tenn.

VENESECTION.—Commenting upon the discussion on the therapeutical value of venesection which occurred at a recent meeting of the Royal Medical and Chirurgical Society of London, where it was held that the indications for its employment were: “first, cyanosis with distention of the right side of the heart, whether from pulmonary or some other obstruction to the circulation; secondly, the intense pain (and we might add, dangerous dyspnœa) of thoracic aneurism; and thirdly, uræmic and prolonged epileptic convulsions,” the *N. Y. Medical Journal* says: “Altogether there is evidence to show that, although venesection is not a positively reliable remedy even in those conditions in which its use would appear to be indicated, yet, that as compared with many of our newly discovered drugs, its action is a means of relief in certain conditions by no means to be despised, and he who abandons the practice needlessly, deprives himself of what may prove a useful agent in a moment of great distress.”

WOMEN'S HOSPITAL.—The Women's Hospital Association has been organized under the laws of the State, with the object of erecting a hospital for the treatment of the deserving poor women and children of the city. An out-patient department is already in operation at 270 Second st., where physicians are in attendance daily from 1 to 3. The President of the associ-

ation is Mrs. W. J. Crawford, and the Secretary, Mrs. Enoch Ensley. Dr. R. B. Maury is the consulting surgeon, and Dr. W. W. Taylor and Dr. Walter Johnson, the attending surgeons. Thus a worthy and much needed charity has been put in operation, and the foundation laid for the grandest and noblest undertaking—the gratuitous relief of suffering in the deserving poor. The JOURNAL extends its greetings and best wishes, and predicts great success.

NEW YORK ACADEMY OF MEDICINE.—We have received from the secretary the charter, constitution, and by-laws, with list of fellows, and of current medical periodicals on file in the library.

THE Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday, Thursday and Friday, October 14, 15, and 16, 1891. A large attendance, a valuable program and a good time are expected. The members of the medical profession are respectfully invited to attend.

MISSISSIPPI STATE MEDICAL SOCIETY.—We have received the following notice:

DEAR DOCTOR—The next annual session of the Mississippi State Medical Association will be held in the city of Meridian, April 15th, 16th and 17th. Pursuant to instructions from the Association, I beg to notify you that should you intend presenting any contributions for the consideration of the Association at the coming meeting, notice of title of contribution must be furnished me by March 10th. Efforts are being made to obtain the usual reduction of hotel and railroad rates, and I am sure such will be granted. Please report all cases of interest, thereby contributing to the success of the meeting.

Yours truly,

W. E. TODD,
Recording Secretary.

Mr. J. F. Dowdy has withdrawn from the house with which he has been connected since its establishment. Messrs. Titcomb & McCain continue the business and will uphold the high standard of this first class pharmacy.

BOOK REVIEWS.

A COMPEND OF GYNECOLOGY. By Henry Morris, M.D. Blakiston, Son & Co., Philadelphia.

This little book belongs to the Quiz Compend series, issued by Blakiston, Son & Co. It is well arranged and illustrated, clear and comprehensive, yet concise. It will prove an excellent remembrancer for the student, and a useful refresher for the busy practitioner.

A MANUAL OF THE PRACTICE OF MEDICINE. By Frederick Taylor, M.D., F.R.C.P., Physician to and Lecturer on Medicine, at Grey's Hospital, etc., etc. With illustrations, P. Blakiston, Son & Co., Philadelphia.

This book, of about nine hundred pages, presents a complete account of the present state of medical practice. Special attention is paid to symptomatology, diagnosis, prognosis, and treatment, and while etiology and pathology are of course discussed, the latter does not occupy that prominence which is often given it in works on medicine, the author wisely referring to special works on the subject for a comprehensive presentation of it.

HEREDITY, HEALTH AND PERSONAL BEAUTY. By John V. Shoemaker, A.M., M.D., etc. F. A. Davis, publisher, Philadelphia.

Though written for popular use, and not intended specially for the medical profession, the book contains a vast amount of information, which the physician should be possessed of, and we know of no other work where this can be found; hence, every physician should have it. Its importance to the laity is equally great, and familiarity with its contents will accomplish untold good.

READING NOTICES.

The Health Restorative Co. will send free samples of their products to any physician. See advertisement on 3d page cover.

Physicians wanting optical goods need not send East. Mulford has a full selection at Eastern prices.

Students who intend to take a post-graduate course should go to New York Polyclinic. See list of Professors in advertisement.

The Cincinnati Sanitarium admits 150 patients annually. It has been in successful operation for seventeen years.

The Alban Surgical Instrument Co. is the only establishment handling surgical instruments and supplies only.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., APRIL, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

ADDRESS

To the Graduating Class of the Memphis Hospital Medical College.

BY PROF. SHEP. A. ROGERS.

I shall tonight occupy your time with a question which is now attracting the attention of many of our leading thinkers, a question that all, regardless of vocation or position in life, are interested in, viz.: What disposition shall we make of our dead?

To the many sentimentally inclined, burial furnishes an easy answer to this question. So like the repose of sleep is death, that as they gaze upon the closed lids and folded hands of their dead friends, the impulse is to lay their lifeless bodies reverently and quietly in a grave marked by a marble shaft and covered by flowers kept fresh by the tears of affection. But there is a large and respectable class of men who are not content with the answer to this question thus given by sentiment, and it is well that they are not content with this mode of disposing of the dead.

It may not be improper to suggest primarily that the matter of death and burial has an economic side. Statistics show that 47,000,000 of people die every year, and that to each and every one of these 47,000,000 must be allotted 2x6 feet of ground, making a total of nearly 21 square miles of the earth's surface that is each year taken up for burial purposes; and

the surrender of so much space to the dead, with the rapidly increasing population of the world, will soon become a feature of enormous importance to the living. In addition, when funeral expenses incident to these 47,000,000 burials are ascertained, the economic objections to interments are strengthened.

do not desire, however, to direct your thoughts in that line; they are considerations for the political economists. Your attention as specialists who are to have charge of public health must be directed to the unsanitary features of burial, to the cost in lives, and not in dollars. That this cost in lives annually reaches far in the thousands, there can be scarcely a doubt. Among others, Pasteur has made many experiments which tend to prove that burial is a dangerous practice. One of the most striking of these was this: He buried the body of a sheep that had died of charbon twenty feet beneath the earth's surface. After a lapse of ten years time, he allowed a flock of healthy sheep to graze upon and around the grave; this resulted in death to all the flock from charbon. This instance alone, would prove nothing, but coupled with other investigations of his, Koch, Carpenter and Evert, all of which have given similar results, together with microscopical examinations of the dead animal tissue in its various stages of decomposition, show plainly that the germs which cause the charbon do not die with the body, but thrive and multiply in the decomposing carcass, and are transmitted to the earth's surface by earthworms and are then ready for new victims. Reasoning by analogy, the same would be true of the germ of yellow fever, cholera, typhus fever, phthisis, and in fact, all other germs that attack the human kind. But we scarcely need reason by analogy, for our cemeteries are notorious breeders of disease. Instances are numerous where the upturning of the ground in burial places has given rise to fatal sickness. Potters' field in New York City, in 1806, was ploughed up for the purpose of converting it into a public park; this upturning of the earth liberated the germs of cholera which had been buried three years previously in the victims of that disease, and caused a terrible epidemic to sweep over that city. London had a similar experience in 1665, from the disinterment of bodies that had been buried nearly three hundred

years. In 1843, Minchinhampton, Eng., suffered from a plague that had not visited that place for seventy-five years, and was directly traceable to the disinterment of bodies from an abandoned graveyard. At Kelioab, a town near Cairo, the bodies of victims of a plague were disinterred a hundred years after burial, and the liberated disease germs attacked new victims and caused a second plague. Modena met a similar fate from the disinterment of bodies that had been buried nearly three hundred years.

Many other well authenticated instances of a similar character could be cited illustrating the dangers from this source, but another will suffice. It has been noticed that streams in the vicinity of graveyards are very apt to cause sickness, which at times partakes of an epidemic nature. In such instances the diseased germs migrate from the bodies of the victims to the water, or they may be carried there by earthworms; then they are distributed along the banks of the stream, and are ready to attack any whom they come in contact with.

There is little doubt in my mind but that Memphis owes some of her mortality to the relation of Elmwood cemetery with Bayou Gayoso. Elmwood is situated upon one of the head waters of the bayou. This is a small, sluggish stream that pursues a serpentine course through the most thickly populated portions of the city, having every opportunity to collect from Elmwood the germs of disease and distribute them broadcast. And who knows but that the terrible epidemics of '73, '78 and '79 were but the legitimate outcome of the yellow fever germs buried with the victims of 1867?

Nor does the danger of burial end here—the earth and the water does not receive all the contamination; the atmosphere gets its pro rata. Cases are not rare where gravediggers, while disinterring bodies, have been stricken with death by the foul gas that escapes from the burial tomb. Well did Sir Henry Thompson express the dangers of burial when he said, “No body is ever placed beneath the soil without polluting the earth, the air, and the water above and around it.”

We cannot withhold our condemnation of the deleterious system, nor refrain from urging that it be abandoned. Now what substitute have we to offer for it?

Some genius, taking advantage of the chemical composition of the body, proposes to immerse it in sulphuric acid, thereby destroying the organic portions and converting the inorganic residue into the sulphates, which would consist largely of sulphate of lime or plaster of Paris. Out of this could be cast a perfect model of the dead one's face by means of a mould previously taken ; this would be sanitary, and it is a beautiful idea, but of course impracticable. Cremation offers the most satisfactory solution of the question. With cremation there can be no contamination of the earth, the air, or the water. No source of disease.

Before discussing cremation as it is today, let us see how the ancients disposed of their dead. The primeval savage probably removed his dead to some secluded spot and allowed nature to do the rest. Later on, as population increased and man became more humane, some mode less revolting to natural instincts had to be adopted. Land being abundant, burial was the mode selected by the masses. The intelligent and wealthy, however, even in very early times, practiced cremation. The exact period when cremation first begun history fails to tell, but reference is made to the funeral pyre 2000 years B. C., and judging from all evidence now at hand, the Orientals were the first to practice it. As to what it was indebted for its birth, authors are at variance. Some of the modern cremationists believe it to have been the result of sanitary research. I cannot quite agree with them, as it was practiced by different nations with widely different ideas, and we even find the same nations practicing it at different periods with different ideas. The Jews, in obedience to the Mosaic code, inflicted it upon all who violated the laws of wedlock. Later on, the same race regarded cremation as an honor fitting only the most eminent of the nobility. The first king of Israel who fell giving battle to the Philistines in Gilboa was cremated by his race as a mark of distinction. The Greeks cremated all who fell in battle to prevent their mutilation by the enemy, while burial was a mark of infamy which all cowards, criminals and slaves suffered. Even Ajax was denied the funeral pyre because he suicided. The Romans practiced cremation until the advent of Christianity. Cæsar, Brutus,

Antony, Pompey and Octavius were all cremated. Nero was partially so, because of his infamous career. In India from a remote antiquity, the practice has been kept up until late years. By this I mean ancient, or what might be termed unscientific, cremation, which was accomplished by placing the corpse upon a pile of wood built in the shape of an altar and after pouring balsams and other sweet smelling substances over it, the torch was applied and the corpse burned to a few pounds of ashes.

To Prof. Brunette of Padua must be accorded the distinction of being the first to practice modern or scientific cremation. In 1873 he cremated three bodies by what is known as his process, and exhibited the ashes at the Vienna Congress. The report of this work aroused the scientific world to thought upon the subject, and in a short time societies for cremation were established in many of the leading cities of Europe.

In England, however, this mode of disposing of the dead had a hard struggle. On the 13th of January, 1874, there was founded a society of cremation in England. In 1878 a building was erected and a bill introduced by Dr. Cameron in the House of Commons to legalize cremation. The bill was defeated, in face of the fact that it was backed by Sir Lyon Playfair, Sir John Lubbock, and others of equal prominence. Gladstone was largely responsible for this defeat, and he was forced to admit that his only reason for opposition was that public opinion was against the measure. Ten years after the formation of this society, an eccentric physician living in South Wales by the name of Price, settled the legality of the question without the aid of the House of Commons. He was a descendant of the ancient Druids and followed their druidical practice of burning the dead. Taking the body of his child, he placed it in a cask of petroleum, applied the torch, and accomplished his idea of cremation. For this he was indicted and tried, but the judge, Sir James Stephens, after a diligent search, failed to find any law by which to convict the prisoner of crime and charged the jury to acquit. The result of this trial relieved the society of all embarrassment and it began operations.

In America, the first white man to be cremated was Sir Henry

Laurens of Charleston, S. C., who was President of the first Colonial Congress. He was morbidly afraid of being buried alive, and on his deathbed gave instructions that his body be burned, which was done by his family with the best means at their command. The second was Sir Henry Barry of Marion, S. C. The third, and really the first whose body was cremated scientifically, was Baron De Palm, a native of Bavaria. This was done at the LeMoyné Crematory, on the 6th of December, 1876. Since which time the bodies of many prominent men in this country have been disposed of in this way in accordance with their wish expressed during life. Among them was the late Prof. S. D. Cross of Philadelphia, who in his time, was the foremost American surgeon. He was a man of wide experience, and one who had exceptional opportunities for observing the body after death. He gave the subject a great deal of thought, and to him inhumation was a horror. No wonder, then, that he should have dreaded the grave, a cold, putrid, prison house, where time by its slow and loathsome process destroys all; where the brain that gave forth pure and noble thoughts, and generated great ideas, becomes the hovel of the slimy worm; where the form, once admired for its ease and grace, becomes the hotbed of putrefaction, breeding the vile insects that feed upon it, and where at the end, is only left the polished bones that seem to mock our idea that inhumation is worthy of our loved ones.

With all the advantages cremation has over burial, the question naturally arises, why has it not been universally adopted? Well, there are many objections to cremation in the minds of the people, which will take time, thought and investigation to dispel. Some object on religious grounds, and as unpardonable as it may seem, these extremists construe the resurrection of the body to mean a resurrection of the identical atoms, believing the immortality of the soul to be chained to their bodies. They also believe that these atoms would be destroyed by cremation, thereby rendering resurrection impossible. On the latter proposition, I would refer them to natural science which teaches that no matter is ever destroyed; that its form only can be changed, that every atom will continue to exist. To show the absurdity of the former proposition, I would

answer that the atoms now constituting our bodies have served a similar purpose for many of our forefathers. Now if the belief of these extremists be correct, imagine the wrangle that will arise on the final day as to the validity of the titles advanced by different ones to the same set of atoms. 'T will really be amusing even on that awful day. I would also remind them that nature in from twenty to one hundred years accomplishes exactly what cremation does in two hours ; one is slow, the other rapid oxidation, and resurrection of the identical body is in one case as probable as the other. The ultimate results are identical ; both fulfill the same end ; "ashes to ashes, dust to dust." Others cling to burial as the practice of their forefathers, for man is slow to leave the well-worn path and venture on new highways. This is especially true of any customs pertaining to the dead, and around burial time has cast a halo of reverence into which many have not the hardihood to intrude. To this opposition, no argument can be made. Time alone will dispel it. Another, and by far the greater mass of opposition to cremation, is due to ignorance—a want of knowledge as to what cremation is. Such opponents vividly picture to themselves a horrible spectacle, and cremation is condemned without a hearing. Such a picture was true of the ancient cremation, but thanks to modern science the process has been robbed of all its horrors, as will be seen by the description of the process given by an eye witness, as follows :

"The body was borne into the chapel and placed upon the catafalque, which stands in front of the altar. The section of the chapel floor upon which the body rests forms the floor of the elevator. As the funeral services proceed, the elevator invisibly and noiselessly descends, bearing the body to the basement in front of the incinerator, which by means of superheated air has been raised to a white heat within ; the door of the incinerator then opens to receive the body, the inrush of cold air causes the temperature to fall a little, giving the interior a beautiful rose tinge ; the corpse wrapped in a sheet saturated with alum and placed upon a metallic bed passes over rollers into a bath of rosy light. The sheet delineates the form of the body until incineration is complete ; the flesh

and bones crumble into ashes as it were, the result of an invisible agent. It requires from one to two hours, when a few pounds of clean, white ashes, resembling frosted silver, are dropped into an ash chamber by means of a lever, and thence drawn into a suitable urn to be returned to the catafalque by the time the funeral services are over, and the friends of the deceased find the ashes where they had last seen the body. The process has no disagreeable odor, no appearance of fire or smoke; the body vaporizes and passes off as an invisible gas."

Cremation offers nothing that could offend the feelings of the most sensitive; it is the only never-failing germicide; it is a blessing sanctioned by all the laws of God. Tried by the crucial test of science, it rises incomparably above inhumation.

In closing, gentlemen, allow me personally and in the name of your Faculty, to thank you for the uniform courtesy and attention they have received at your hands, and to urge upon you to continue your studies with the same earnestness in future as you have in the past. Conduct yourselves with that dignity becoming one of your profession—and just here I might give you that little fatherly advice usual on occasions of this kind—and that is, to live in brotherly love with your fellow-practitioners. But I know you would not heed me. I know doctors too well for that. Somehow or other, they always disagree. Place three of them in a little cross-road town and you have a triangular fight, and you can increase the angle indefinitely, provided your supply of doctors holds out. They are unlike lawyers, something like preachers—that is, they can't agree, for harmony in medicine like purity in politics, is an iridescent dream.

Physiological Action of Atropine.*

Dr. Reichert's paper in the February number of the *Magazine* has not only a freshness about it which makes it interesting, but also an apparent antagonism to older views, which leads me to make some comments lest clinicians should think physiological therapeutics a mere searching for a will-o'-the-wisp. It is a fact, however, that the physiological portion of

* H. C. Wood, M.D., in *University Medical Magazine*.

the essay is, in most important matters, not discordant with previous conclusions. The clinical portion, coming from the pen of the pure physiologist, carries less weight; and many years of study of the records of cases and much personal observation leads me to disbelieve the correctness of some of Dr. Reichert's conclusions concerning the effects of atropine in human opium poisoning and concerning the symptoms of atropine poisoning.

It is certainly true that atropine does not always increase respiration in opium poisoning; but the general professional belief that when it does do good it increases the frequency of the respiration is, according to my reading, in accord with the clinical facts and the clinical records; also, I still believe that ordinarily in atropine poisoning the respiration is hurried.

Leaving, however, this clinical matter as comparatively unimportant, we come to the physiological portion of the paper, that portion which bears the great weight of Dr. Reichert's physiological reputation. The important conclusion is reached in the language of the author: "Thus, clinical, experimental and toxicological data demonstrate clearly that atropine cannot be considered a reliable respiratory stimulant:" on the opposite page, however, facing this sentence, is the positive (and, as I believe, correct) statement: "The fact that the rate is always increased after section of the pneumogastric nerve is *conclusive proof that the drug stimulates the respiratory centers.*" [Italics are mine.]

I do not propose to enter into any further discussion of this matter, but think that it ought to be understood that, so far as respiration is concerned, the physiological conclusions of Dr. Reichert are, that atropine stimulates the respiratory centers, but paralyzes the peripheral ends of the pneumogastric nerve. Any reader who will take the trouble to look on page 214 of my "Therapeutics," 7th ed., will find it there stated that "Atropine causes a direct stimulation of the respiratory centers;" and also, "a paralysis of that portion of the pneumogastric nerve which is connected with the function of respiration." There may be difference of opinion between us as to the exact clinical value of atropine as a respiratory stimulant, but as physiologists we are in accord.

In accordance with Dr. Reichert's opinion is the fact that the recent growth of our knowledge indicates that atropine will have to be dethroned from the first place which it has held among practical respiratory stimulants. Ammonia, it is true, is too fugacious and too locally irritant to be of first rank at the bedside. Cocaine, at this moment, bids fair to be of service, but its exact usefulness is not yet determined. The great value of strychnine was, however, demonstrated upon anesthetized animals by myself last summer, and since then I have proved its power in animals narcotized with chloral or morphine; whilst the remarkable case of opium poisoning published in the *Magazine* by Dr. Clara Dercum must be fresh in the minds of readers.

The second portion of Dr. Reichert's article does not seem to need discussion here, dealing as it does with purely physiological points, and after all, except in regard to the accelerator nerves, not differing essentially in its important conclusions from the older opinions. Dr. Reichert certainly shows that the theory that the accelerator nerves are acted upon by atropine is unproved, and is at present unnecessary, because the physiological facts upon which it has been based are best explained as being the result of the direct stimulating action of the drug upon the heart. The theory of the stimulation of the accelerator nerves originated before it was believed that small doses of atropine stimulate the heart directly.

PEPSIN is undoubtedly one of the most valuable digestive agents of our materia medica, provided a good article is used. Robinson's Lime Juice and Pepsin we can recommend as such. (See adv.) The fact that the manufacturers of this palatable preparation use the purest and best pepsin on the American market, and that every lot made by them is carefully tested before offering for sale, is a guarantee to the physician that he will surely obtain the good results he expects from pepsin.

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

GASTRO-ENTEROSTOMY

With Rawhide and Segmented Rubber Plates.*

Gastro-enterostomy is an operation to establish a permanent fistula between the stomach and some part of the intestine. The term is a generic one, and under it may be included gastro-duodenostomy, gastro-jejunostomy, gastro-ileostomy, and gastro-colostomy. It signifies a communication of the cavity of the stomach with the lumen of the intestine through their respective contiguous walls, and is simply gastro-intestinal anastomosis.

The object of the operation is to overcome an obstruction, malignant or non-malignant, in the pylorus or in any part of the intestinal canal that can be excluded by the anastomosis. The advantage of gastro-enterostomy is that by means of it no structure need be removed. None of the functions of the digestive tract are destroyed in the operation, since physiologically the gut is only partially excluded. All the glands, nerves, blood vessels and lymphatics in the excluded intestine can perform their duty in the natural way, as the secretions of the mucous membrane can escape in both directions, and still aid in digestion. In short, gastro-enterostomy permits the contents of the stomach to pass into a new channel with the least possible disturbance. As a surgical procedure this operation possesses all known advantages—no important blood vessel is cut, no vital function is destroyed, and no great nerveplexus is injured, and it has the prime essential of all intestinal operations—it is short in duration. It may be considered a successful rival and substitute for pylorotomy. As the operation is a much less serious procedure than pylorotomy,

* By F. B. Robinson, B.S., M.D., in Medical News.

it will have a greater field of usefulness, and will be oftener employed. In gastric cancer it has the great advantage of prolonging life with little or no suffering. It does this by putting the diseased parts in a state of rest. The disadvantage of gastro-enterostomy is also obvious—that is, it does not remove the disease. Whether the tumor may be a slow-growing, non-malignant neoplasm, or the erratic proliferation of the malignant cell, gastro-enterostomy does not in the least interfere with the growth; hence, whatever the disease may be, it continues after the operation as before, except that it is not irritated by the passage of the contents of the stomach. It would be a disadvantage to a patient to do this operation for a non-malignant stricture of the pylorus if the stricture could be successfully dilated, for the natural channel is better than an artificial one. An artificial channel does not have a perfect sphincter, is liable to contractions and dilatations, and hence does not regulate the passage of the contents of the stomach.

When gastro-enterostomy has been done, it is difficult to obliterate the artificial fistula. When the dangerous pylorectomy is done, it removes, as far as possible, the offending growth, and thus may prolong life; but the close proximity to vital organs, the difficulty of its execution; the prolonged exposure of the abdominal viscera, and the manipulations of great nerve-plexuses, all induce profound shock which endangers life. I saw the skilled surgeon, Professor Billroth, tie the portal vein by mistake while doing a pylorectomy, and thus cause the death of his patient. It may be stated in general that gastro-enterostomy has not fully satisfied the expectations of the profession, but that the surgeon who pays particular attention to the operation will not be very much disappointed. Careful observation clearly shows that the operation has not been done on very favorable subjects, and that the disease killed the patients while the operation benefited them. After the operation the patient suffers less, is more useful to himself and less of a burden to his fellows until his death, which is inevitable. Some patients are now alive several years after the operation.

So far as I have been able to ascertain, the operation of

gastro-enterostomy has been performed upon man about 140 times, although some of these may be duplicate cases.

The operation was first performed in Vienna by Dr. Wolfler in 1881. He began the operation of pylorotomy, but being unable to complete it on account of the conditions, did a gastro-enterostomy to obviate the trouble. A hole was cut into the stomach and one into the gut, and the margins of the wound were united by the Czerny-Lembert stitch. The patient lived four months. Since that time Billroth, Lauenstein, Senn, Borker, Rhydygier, Page, Hahn, Czerny, Luecke, Kuster, Winslow, Stamm, Posteniski, Ransohoff, Monastyrski, Roscowitz, and others have performed the operation. The most numerous and favorable reports of cases of gastro-enterostomy come from Professor Luecke of Strasburg, who with eight operations had seven recoveries.

The last report of Professor Billroth's that I have seen contained eight cases with three recoveries and five deaths. Prof. Czerny reported in 1870 that he had done eleven gastro-enterostomies in his clinic with the following results: three died of septicemia, four died of progressive marasmus or pneumonia in from two to four weeks after the operation, and four were benefited by the operation. At the same time he reported twelve cases of pylorotomy, of which eight recovered and four died. The medical world has long looked upon Profs. Billroth and Czerny as the great advocates of pylorotomy, and hence it would be natural to expect equally authoritative and reliable results from this closely related operation, gastro-enterostomy. Prof. Czerny assisted Prof. Billroth for several years in the clinic at Vienna, so that the work of these two men is similar. I know from visits to Prof. Czerny's clinic in 1883 and Prof. Billroth's in 1887, that their work represents the greatest skill, yet their results in these operations are not very flattering. I am convinced that this is chiefly due to late operations on unfavorable cases. It is reported, though I cannot show statistics, that Prof. Senn's results have been more favorable. This I think is due to the fact that Prof. Senn operates earlier in the course of the disease than is done in the clinics mentioned. Dr. Senn's wide experience in intestinal operations gives him skill and rapid execution—prime

factors in gastro-enterostomy. However, the operation must be judged by the kind of cases upon which it is employed, and not merely by death statistics. The results of gastro-enterostomy are on trial in every country. The final effects on life must be determined by the observation of many cases through a number of years of carefully recorded work. Brilliant single cases, by good specialists, should not blind us to the generally observed effects. Extended clinical research is the only mode of arriving at a conclusion upon the subject.

Two results of the operation are to be expected: one is the relief of suffering; the other, the ultimate cure of the obstruction by directing a part or all of the contents of the stomach into an artificial channel. In general it accomplishes these objects well.

By the old method which Dr. Wolfier employed, gastro-enterostomy was, in my opinion, an unsafe operation. Its dangers lay in the length of time required to perform it and also in the yielding of the sutures; moreover, insufficient rest was given during repair of the wounds, due to non-fixation of the parts. The fistula is not held patent by the old method, while the plates now in use keep the fistula open, thus insuring a lumen large enough for free communication between the stomach and intestine. Experiments taught me some valuable lessons in this work, and by the liberal use of dogs I soon learned to avoid a number of errors. The experiments convinced me that the anastomoses should be made at the most dependent portion of the stomach in order that the food may escape from the stomach with greatest ease. If the anastomosis is made between the gut and the highest part of the stomach, or along the lesser curvature, or even midway up the organ, the animal suffers more or less until all food is expelled from the stomach. By anastomosing the lowest portion of the stomach to the bowel, the artificial fistula is kept sufficiently patulous to prevent obstruction.

The fistula is kept open mainly by the passage of food, flatus, and secretions, and when plates are used they aid in keeping it patent. The operation can be done with the ring and plates in thirty minutes, making it a safe and reliable surgical procedure. When we consider that thirty-five per

cent. of all cancers attack the stomach, and that of gastric cancers sixty per cent. begin in the pylorus, the supreme importance of the operation is apparent. It seems reasonable that gastro-enterostomy should be substituted for pylorectomy in cancer of the pylorus, for autopsies demonstrate that one-fourth of pyloric carcinomas show secondary deposits in the liver. In such cases pylorectomy is almost useless, while the safer and more easily performed gastro-enterostomy will relieve indescribable suffering until the inevitable end. Even in non-malignant neoplasm, and in stenosis and occlusion of the pylorus, gastro-enterostomy has all the advantages of pylorectomy, besides producing less shock and violence to system.

It required three years of experimentation to discover the proper material for the plates. In 1889 I began to use cartilage from the scapula of a heifer. At that time I had never heard or read of cartilage plates being employed for this purpose. I abandoned the cartilage plates in a short time, however, as they were absorbed so quickly when thin, and were too clumsy when thick. Some dogs died because of the too rapid absorption of the plates. Various forms of leather were then tried, as the reports of the experiments will show. Finally, I adopted rawhide, and the success of this material in gastro-enterostomy, as well as in many other operations, demonstrates that it is a proper material for securing an anastomosis in the alimentary canal. It is absorbed slowly, and causes coaptation of the large serous surface, producing complete fixation and rest of the parts—essentials for prompt and efficient healing. The rawhide plate is made by shaving the hair from the "green" hide of an ox, and cutting it in strips an inch wide and two and one-half inches long. A diamond-shaped hole one-half by three-fourths inches is then made in the center. From four to six sutures armed with needles are attached to the plate, and it is ready for use. I used linen thread and ordinary round sewing needles. The thread should be kept in carbolyzed water or alcohol. The plates can be used either dry or green. Any degree of thickness and hardness may be secured in drying the green hide. The size and rapidity of absorption of these plates can be adapted to the character and quality of the intestinal tract. I secured better

results from the use of six than from four sutures. The death of a few dogs induces me to say that in intestinal anastomosis it is not wise to penetrate the incised gut-wall too far from its margin with the needle, as a fecal fistula is apt to be produced.

National Association of Railway Surgeons.

This Association holds its fourth annual meeting at Buffalo, New York, on the last of April and the first of May. The attendance heretofore has been exceedingly large, and the prospects for a full meeting at Buffalo are quite promising. Every surgeon doing railway surgery should become a member at the next meeting. The interchange of views as well as discussions of methods of management of railway injuries can not but be productive of good. At this meeting will be seen the leading railway surgeons of the country—men who have spent years in the service—men whose experiences recited there will be well worth the trip, to those of lesser experience. Every railway corporation should see to it that its surgeons attend the meetings of this Association. The interests of the company are often jeopardized because of want of experience on the part of surgeons in these particular injuries, and surely no pains should be spared to bring their surgeons in contact with other surgeons of experience in such matters. Not only should transportation be secured to local surgeons, but the managers should urge those surgeons to attend.

BOOK REVIEWS.

A MANUAL OF MODERN SURGERY. By Jno. B. Roberts, A.M., M.D.
Lea Bros. & Co., Philadelphia.

We do not feel equal to the task of thoroughly reviewing this most excellent work on surgery. We could not do justice to the subject, although we have studied the text very assiduously. Nor does the reputation of the author need further support. Already every journal of prominence has presented a review of this work, and the expression has been unanimous in praise of the soundness of the principles laid down. The style of the author is clear, concise, and emphatic, and surgeons actively engaged in practice will be the ones

most to appreciate the work. We predict that it will require but a short time for this Modern Surgery to take the place of numerous musty volumes now in the hands of teachers and students.

ESSENTIALS OF MINOR SURGERY, Bandaging, and Venereal Diseases.

By Edward Martin, A.M., M.D. One of the latest question compends issued from the publishing house of W. B. Saunders, Philadelphia.

We find this little work quite complete in the branches named in the title. The illustrations are good, and for class teaching as well as for students the work will doubtless find ready sale. We have found it very convenient during the past session in outlining an evening's quiz, as well as furnishing notes for an hour's talk.

PRINCIPLES OF SURGERY. By N. Senn, M.D. Illustrated with wood engravings. Complete in one volume. Published by F. A. Davis, Philadelphia. Cloth \$4.50, leather \$5.50.

This work just from the press consists of 600 pages clearly-written matter, and is devoted to the principles of surgery. No pretense whatever is made to operative surgery. The repair of wounds, inflammation, bacteriology, suppuration, pyemia, septicemia, surgical tuberculosis, anthrax, tetanus, and hydrophobia, are dealt with under the light of most recent discoveries. It is a book that will soon find its place on the table of every reading surgeon of the country.

REED & CARNICK, who never add new preparations to their list unless they possess important points of superiority over those in use by the medical profession for similar purposes, are again to the front—having rebuilt the factory which was burned some months ago, and added new and reliable preparations to meet the demands of the profession. The JOURNAL congratulates them, and extends a hearty welcome.

THE house of S. C. Toof & Co. need no better advertisement than a copy of this JOURNAL. It is the most complete printing establishment in the South.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

LAPAROTOMY,

Old and New Ways in the After Treatment of.

Dr. Alex. J. C. Skene read a paper with this title before the Brooklyn Gynecological Society (*Brooklyn Medical Journal*). He said that recent reports in medical literature showed that a new departure has been taken in the after treatment of laparotomies. Opium, which was formerly used to give the bowels rest, has been abandoned, and the bowels are moved early, and also where the slightest signs of sepsis are detected. This appears rational, on theoretical grounds, especially in view of the fact that in well-marked septicemia there is frequently a spontaneous serous diarrhea, which occasionally is followed by a lowering of the temperature for a time. It is seldom, however, that permanent improvement occurs after that kind of elimination by purgation. Whatever theories or facts may be advanced in favor of this plan of treatment, one would gladly accept it, or any other which might prove better than the old ways of managing such cases. But I have failed to see that this new treatment has many advantages.

So far as I can learn, the results on the whole do not compare well with those of other surgeons who give opium and let the bowels rest, and the stomach also, until the first dangers are passed. Furthermore, I have found in my own practice, that as soon as there are evidences of peritonitis or sepsis the stomach is disturbed and will not retain saline cathartics, or anything else for that matter. Perhaps the advocates of this treatment may be able to anticipate the coming storm, and by giving salines, ward it off; but I have never been able to do so.

Regarding the use of opium, or rather the discarding of it, in the after treatment of laparotomy, I am still more conserv-

ative. While there are a number of reasons why it should be used, I have not yet heard of any good reason why it should not be. That there are patients that do not need opium, and others with whom it does not agree, must be admitted; but the majority require it to relieve pain, produce sleep, and, above all, rest and quiet, which are so very necessary to recovery after major operations. These effects of opium, it may be claimed, simply contribute to the comfort of the patient, but do not secure safety or aid in recovery. Granting that such may be the case, the humane surgeon will find in this good reason for the use of opium; but I am confident that opium has a therapeutic value in addition to that of relieving suffering.

The danger from shock which arises from major operations is, I am sure, controlled by opium better than by any other drug. So also is the depression from anemia resulting from hemorrhage. All careful observers have noticed that the rapid feeble pulse has become fuller, slower, and steadier under the influence of opium. The anxious, pinched face also changes to a better expression. This has led me to look upon opium as the most reliable of all heart tonics in the depression which follows these operations. When the organic nervous system is tottering under the oppression of severe injuries to the abdominal and pelvic viscera, opium is the greatest sustaining agent.

Perhaps more important still is the question which I especially desire to raise in this connection: Does opium have the power of preventing peritonitis and septicemia or controlling their fatal tendencies? To judge fairly of the therapeutic effects of opium in surgery, it is necessary to keep in mind the fact, that after an operation there are injured or damaged tissues left that must be repaired. These tissues may or may not be affected with septic material, but in either case the safety of the patient depends upon these wounded tissues being speedily closed in by reparative material, which restores continuity of tissue, and at the same time, protects the normal surrounding tissue from inflammation, and the patient from septicemia. Now this process, by which the general system is protected from the dangerous effects of local inju-

ries, requires time—less time than it required to restore the injured tissue or heal the wounds; but it is the most important time, because upon completion depends the safety of the patient to a great extent. Wounds will do badly, but if an exudation has been thrown around them which protects from septicemia, recovery may be expected. Of course, the modern surgeon protects his case from sepsis by his cleanly operating; but in spite of his best efforts there may be trouble occasionally, and then the great point is to gain time for this natural protective process which comes, or should come, first in the order of restoration. The principal conditions necessary to secure the protective factor in the general process of repair is repose or quietude of the nervous and circulatory systems, and opium is the most potential agent in effecting this condition. The process of repair is arrested when the nervous system is in turmoil and the circulation is running wild, and opium should be used to give the necessary rest. It is a fatal mistake to wait until there is evidence of inflammation or septicemia. It should be given to control the nervous excitation which generally precedes these complications. Opium fails to do all that it is capable of doing if it is not given in time, and it is condemned as useless, when the fault lies in the mode of using it.

The time to give it, then, is an important question. Some of the most successful surgeons give it immediately after the operation, and that it is best when the case is bad and there is shock. In easy cases I prefer to wait until the ether effects pass off to some extent and there is distress or pain present; then it is time to begin it, and the effect should be kept up until there is no danger of complications, so far as the condition of the patient indicates. The way of giving it is of some importance. I prefer to give it at first hypodermically, and keep up the effect in that way or by rectal installations of opium and warm water.

Having advocated the use of opium and objected to the use of purgatives early in the treatment of this class of surgical cases, the question which follows is, when shall the opium be withdrawn and cathartics resorted to? Opium should be generally given up as the constitutional and local evidence of

trouble subside, and then the cathartics or laxatives should be given. The bowels should rest until the time for peritonitis is passed, or if there has been inflammation or sepsis when the acute symptoms and signs of these have subsided.

By way of supporting the arguments in favor of the plan of treatment advocated, I may add that the surgeons who use opium and let the bowels rest, have thus far had the best results, so far as I can learn. Finally, I desire to recall the fact that this method of treatment was first employed in puerperal metritis and peritonitis, and is still practiced by obstetricians to a large extent. Now as there is a marked similarity between the inflammatory and septic diseases which occur in the puerperal state and those which occur after ovariectomy, hysterectomy and the like, the experience of obstetricians with both old and new ways of treatment must be of great value in guiding ovariectomists.

[The position taken by the author, whose experience and reputation as a gynecologist entitles his opinions to be regarded as an oracle of mature judgment, is worthy of serious consideration, in view of the after results of these operations, as well as on the score of humanity. The administration of salines early after laparotomy is done, with the idea that stimulation of the vermicular action of the bowels avoids adhesions which are frequent after such operations, and if this method can be depended upon to accomplish this beyond a doubt, without adding to the suffering of the patient, there would be no objection to it. But I am in accord with the author, because in several instances in my own practice the administration of salines has provoked nausea and vomiting, with tympanitis, which caused much suffering, and in one instance threatened serious results. A wiser course would be to clear the bowels out freely before the operation (and I mean by this a complete emptying) and let them rest after it, and keep the patient free from pain either with opium or codia. By keeping the stomach and bowels empty for forty-eight hours after the operation, there will be enough gaseous distention of the bowels to stimulate sufficient movements of the intestines to prevent adhesions, if this will do it. And if opium is objected to, codia, which is free from the objections of the other, may be used.

This is certainly the more humane course and the one productive of the best results. As observed by the author, the first principle in the treatment of injured structures is to put them at rest and maintain it. As to the usefulness of salines in effecting a so-called intestinal drainage for a septic condition in the peritoneal cavity, it is all theory. The stomach will seldom retain salines, when, according to this theory, they appear to be indicated, and I believe that in those cases where salines have appeared to relieve a threatened condition of sepsis, an overloaded condition of the bowels has been mistaken for it. The only rational course when any real evidence occurs is to remove the source of sepsis at once.]—*Ed. Arc. of Gynec.*

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

DISEASES OF THE EYE OF MALARIAL ORIGIN.

JAMES L. MINOR, M.D., MEMPHIS, TENN.*

Of all diseases, there is none more protean in character than malaria; and in this district, where malarial poisoning is so common, it is important that it should be recognized in all of its various forms. And while a proper appreciation of malarial manifestations in the body as a whole is *sine qua non* to professional success, it is further necessary for us to be acquainted with its effects upon special organs. I have selected the eye, and shall attempt to present a brief resumé of what is known concerning diseases of this organ of malarial origin; and while I shall present my own opinions, I shall not hesitate to borrow from others who have written upon the subject—and chiefly from a monograph by Dr. C. J. Kipp, of Newark, N. J.

Diseases of the eye arising from malarial infection may be advantageously grouped under three headings: (1) Those

* Extracted from Trans. of Med. Soc. of State of Tenn. (53d Annual Meeting).

accompanying paroxysms of malarial fever ; (2) those coming on after such an attack ; and (3) those diseases of the eye which may be the chief manifestation of malarial poisoning.

We will consider (1) those eye affections accompanying the paroxysm of malarial fever. Photophobia, lachrymation, and hyperemia of the conjunctiva and of the iris, may accompany the pyrexial stage. Iritis has also been observed. Amaurosis is sometimes seen during the paroxysm—usually in both eyes. It most frequently begins during the chill, and, continuing through the hot, passes off with the sweating stage, and may or may not be accompanied by headache, pain in or redness of the eyes, or by other symptoms. Occasionally the blindness affects only one-half of the field of vision. The ophthalmoscopic appearances are negative, and the pathology of this form of amaurosis is unknown.

(2) Those diseases of the eye which follow, and are apparently caused by malarial fever, may attack almost any portion of the globe. Dr. Kipp thinks that “the disease most frequently observed in this connection is a superficial ulceration of the cornea.” This he was the first to notice, and he thus describes it: “This ulceration of the cornea is commonly first noticed shortly after an attack of intermittent fever, often simultaneously with the appearance of herpetic vesicles on the nose and lips. In a number of my patients who had annual visitations of this fever, each attack was followed by ulceration of the cornea. In all of the cases that have come under my notice only one eye was affected. If the eye is examined shortly after the first symptoms of irritation are noticed, one or two or more slightly raised irregular opaque lines of varying length will be found on different parts of the surface of the cornea. At the same time some circumcorneal injection will be present. On the following day these opaque lines will have increased in length, whilst at the same time the middle portion of the opacity has been transformed into a shallow ulcer. Under favorable circumstances the reparative process is completed in several weeks ;” while unpromising cases may remain longer or grow worse. Preceding and accompanying the ulceration there are photophobia, lachrymation, and pain in and around the eye. This form of ulceration

of the cornea differs from the vesicular eruptions seen in pneumonia and other febrile diseases in the method of development, as described.

Diseases of the uveal tract (iris, ciliary body, and choroid), while rare, do occur, in the form of serous iritis or exudative choroiditis, and occasionally as suppurative choroiditis, with loss of vision and shrinkage of the globe. Serous effusion into the vitreous has been noted and described by Dr. Seeley of Cincinnati. In chronic malaria, hemorrhages into the vitreous are not infrequently seen; and retinal hemorrhages have also been observed, and a peculiar form of retinitis, resembling that seen in Bright's disease, has been described. Both optic neuritis and optic nerve atrophy have been observed after intermittent fever, and it is claimed that these not infrequently occur, though I have never seen a case of the kind.

The amblyopia, sometimes seen with intermittent fever of long standing, would seem in many instances to depend upon albuminuric retinitis.

We finally pass to (3) those diseases of the eye which may be the chief manifestations of malarial poisoning, and my own observation leads me to think that the most frequent malarial manifestation in the eye is a form of conjunctivitis, which, by the way, is so marked in its peculiarities and accompaniments that its malarial character may be confidently asserted before inquiry is made for it. The inflammation is of a low grade, and it affects both the palpebral and ocular conjunctiva. The discharge is scanty, and is more serous than purulent. The blood vessels are engorged, and the whole appearance is suggestive of a sluggish circulation. There is circumcorneal injection, and there may be spots of abrasion of the epithelial covering of the cornea. The pupils are large and rather inactive, but there is no iritis. The tension of the globe is slightly reduced. The patient complains severely of pain—not so much in the lids as in the globe, and particularly in the supra- and infra-orbital regions. This pain is apt to be worse on certain days or at certain hours than at others, and pressure upon the supra- or infra-orbital nerve causes sharp pain. The entire mucous covering of the lids and of the globe

is markedly anesthetic to superficial irritation. Local treatment in such cases does little or no good, and recourse must be had to the liberal administration of quinine; and to relieve the pain or neuralgia, I have often been obliged to give morphia, and think that I have obtained the best results when it has been combined with gelseminum.

"Intermittent amaurosis has also been observed in cases of latent periodic fevers, in which slight nausea, or some chilliness, or perhaps moderate perspiration were the only symptoms present. The attacks of blindness, which, according to Hinly, are more frequently confined to one eye in this form of fever, assume quotidian, double-quotidian, or tertian type, although the latter is most common. The duration of the attack varies from a quarter of an hour to ten hours or more. If the blindness recurs every night, this affection may bear some resemblance to night blindness—hemeralopia; and this explains, perhaps, the statement of some authors that night blindness is sometimes caused by intermittent fever. In an interesting case of this kind reported by Staeber, the patient was at first supposed to suffer from night blindness, until some days later the time of the recurrence of the amaurosis was delayed, and an attack of complete blindness in both eyes came on in broad daylight. Quinine speedily cured the attack. This form of intermittent amaurosis is also frequently accompanied by headache, supra-orbital neuralgia, photophobia, blepharospasm, lachrymatism, and vaso-neuroses of the eye. In some cases tenderness of the spine was present. The recurrence of the attack was in all cases prevented by sulphate of quinine."—Kipp.

SOCIETY PROCEEDINGS.

MEMPHIS MEDICAL SOCIETY.

A called meeting of this Society was held at the Gayoso Hotel, on April 3d, to hear a discussion of Koch's tuberculosis treatment, by Dr. Wm. Curtis Bailey of New York, recently from Koch's laboratory, Berlin.

Dr. J. E. Black, President, introduced the speaker.

Dr. Bailey was grateful for the cordial welcome that had been extended him in the South. He was in Berlin at the time of the publication of Koch's discovery, engaged in bacteriological study under Koch. He was then instructed by

certain New York doctors to investigate Koch's treatment for these reasons : Koch's reputation for ability and honesty, and a desire on the part of the New York gentlemen to gain a knowledge of the method, that they might be able to disseminate this knowledge.

These gentlemen provided in New York means for conducting experiments in that city. The experiments were carefully watched by Southern doctors, and they urged that opportunity might be offered for the study of the treatment in Southern cities. In reply to this request the speaker is here.

The treatment is still in the experimental stage. Definite conclusions have not been reached. Those who have employed it most, know or pretend to know but little about it. The speaker can only present to those less fortunate in opportunity to experiment and observe, what he has in these ways learned. Its decision must be left to time, conscious that its success if assured would revolutionize the treatment of tuberculosis and mark an era in medicine.

The name given by Koch to the remedy is Parataloid—meaning, alongside of suffering.

It should be borne in mind that the remarkable paper of November 18th was forced from the pen of the originator at a time when he had not completed his investigations, and the speaker heard Koch say in view of this paper that to present the matter thus incomplete, would be as a stream of cold water upon the public, Koch regarding his experiments thus far, in their entirety, as but one step in a series of investigations toward establishing a scientific theory.

Our experiments will but aid Koch in fixing the status of the remedy. Concisely stated, the remedy is a diluted glycérine extract of one of the active principles of a culture product of the tubercle bacilli.

When suitable cases have been selected it is of absolute necessity that they be held for a period of observation before being subjected to the treatment. During that period the physician must familiarize himself with the patient, and so picture the case in his mind that he may perfectly appreciate the reaction.

Make careful record of temperature, pulse and respiration

every three hours day and night ; get history of case and family history ; make physical examination of lungs, noting conditions found ; photograph or drawing if the lesion be of joint or skin ; examination of urine and sputum. Exhaust science in learning your patient and determining his condition, that you may appreciate reaction and later on results.

The usual effects of the injections are as follows :

Sputum. Where there is expectoration, is increased and thinned ; where there is none, it is brought on rapidly. In either event gradually disappearing in favorable cases.

Bacilli. Not affected. Sometimes they are observed granulated, or broken up, or thinned as if starved ; sometimes many, sometimes few, etc., without reference to inoculation. The treatment does not kill the bacilli.

Urine. Nil, save increase, for time being of oxalate of lime.

Appetite. Made ravenous.

Sleep. Is often induced.

Weight. Increased in all favorable cases.

Some evidences of reaction not usually mentioned are, occasionally vomiting after the earlier inoculations ; menorrhagia in a few cases ; pain in tubercular lesion, especially if of joint ; effusion of serum on skin over site of lesion, as joint.

In lupus, for example, the stages of the reaction would be :

1. Increased redness, swelling, and exudation over lesion, no other part affected.
2. Serous exudate by exposure to air forms crusts, and ulcerated surfaces may slough.
3. The crusts and necrotic tissue fall away.
4. Gradual absorption of old infiltration, and formation of new and healthy granulations. This latter has been mistaken for progressive ulceration of the disease. Perfect acquaintance with previous picture will aid differentiation better than words.

When reaction occurs it is pretty conclusive of tubercular lesion, but no reaction is not conclusive against existence of tuberculosis, as tubercles may be present and bacilli found, and yet no reaction occur.

The twenty-one post-mortems made by Prof. Virchow have been of inestimable value in showing the danger and the small range of application of the method.

As demonstrated by Virchow the tubercular lesion consists of these parts : 1st, the bacillus ; 2d, surrounding it, the tubercular tissue proper ; 3d, inflammable, easily irritated connective tissue, uniting the tubercular to the sound tissue ; 4th, exudative products within their connective tissue, and which is new tissue and may form new tissue.

Of these several parts the effect of the remedy is solely upon the inflammable connective tissue. This inflames, becomes necrosed, and drops down, leaving the bacilli unaffected ; but they, having lost their habitat, fall into the cavity and must be removed from the system or they will be absorbed and miliary tuberculosis ensue. The remedy thus accomplishing, in a few days, work for which the slow processes of nature would require weeks and months.

So the remedy is not applicable to any patient who has so much tubercular tissue that he cannot dispose of the released bacilli by expectoration or by surgical means. Only in those cases in which there is but a very small quantity of such tissue is the remedy applicable or safe. Koch insists that the most important point for the success of the remedy is its *early use*.

It is thus primarily and emphatically contra-indicated where lungs are much involved. Other contra-indications are a temperature above 100° ; heart weakness, since the remedy has a tendency to production of heart failure ; cases where swelling of the tissues about the lesion would seriously interfere with respiration ; brain, eye, or intestinal tuberculosis, where no means of exit are offered the bacilli. It is indeed essential to success and safety of treatment that there be *open lesion* for extrusion of necrosed tissue and bacilli.

It is a dangerously erroneous idea, urged the speaker, that reaction amounting to a high grade of fever is essential or safe. Small febrile reaction, with great local change, is the best evidence of good effect.

The injections are to be repeated from time to time until no reaction occurs, or it is evident no benefit is obtained. The injections are not to be made at less interval than forty-eight hours, and then only if the reaction of the previous injection has fully subsided.

The speaker is enthusiastic in his admiration of Koch, and while exceedingly hopeful of the success of the remedy in selected cases, presents with utmost fairness its narrow limitations and its dangers, giving due credit to Virchow for his share in determining these.

On Dr. Saunders' motion the thanks of the Society were extended Dr. Bailey for the valuable and interesting discussion.

A. B. HOLDER, M.D., Sec'y.

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Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting.

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

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Memphis, Tenn.

MEMPHIS HOSPITAL MEDICAL COLLEGE.—The closing exercises of this institution occurred on Friday evening, March 27, at the Lyceum Theatre. The degree of Doctor of Medicine was conferred upon the following list of successful candidates:

J. L. Albright, J. H. Alexander, R. J. Alexander, E. F. Arnold, J. W. Andrews, Wm. N. Barlow, Wm. A. Burns, I. Beck, L. H. Bibby, W. W. Brown, D. R. Crow, S. I. Colvin, J. V. Clarke, B. L. Craddock, W. D. Cross, B. L. Carr, T. J. Carr, T. H. Craig, D. L. DeMyers, J. S. Driver, A. M. Davis, J. W. Duke, J. D. Driver, C. T. Doremus, J. R. Evans, H. L. Edens, J. B. Ewart, I. H. Edgington, J. W. Fergus, L. F. Gracey, J. M. Golden, E. L. Goldsby, J. Grigsby, A. E. Griffin, W. P. Gilstrap, J. J. Gill, B. H. Galligher, C. A. Gibson, H. Gilmore, E. E. Haynes, A. G. Hughey, J. C. S. Harrod, J. M. Hart, J. S. Helms, J. E. Hope, W. W. Harrison, T. A. Johnson, Wm. F. Killian, J. H. Liebkeman, C. S. Lane, B. R. Looney, Wm. L. McCullough, W. R. Metcalfe, W. E. Mulline, D. O. Menasco, B. Mull, W. T. McCain, T. N. Meriwether, J. A. McIntyre, J. C. Norcott, L. B. Newsom, J. M. O'Farrell, T. R. Ogden, M. R. Purnell, A. W. Rudisill, R. D. Reynolds, J. P. Reynolds, H. M. Reeves, J. T. Stone, J. G. W. Smith, J. S. Saunders, E. Strauss, R. H. Strickland, A. J. Sanders, A. R. Tarkington, J. T. Tipton, J. W. Teague, S. W. Trepton, L. Taylor, J. A. Valentine, E. H. Winkler, R. M. Wellborn, W. H. Williams, S. D. Wheat, A. M. Wilhite, S. M. Wilhite, W. T. Wilson, J. W. Whitworth, R. M. Wickline.

Dr. R. A. Alexander of Bassett, Texas, delivered the salutatory address; Dr. E. E. Haynes of Coahoma, Kentucky, the valedictory, and Prof. S. A. Rogers the charge to the graduates.

NEW PROFESSOR.—Dr. D. D. Saunders, one of the best known practitioners of the Bluff City, has recently been elected to the chair of Clinical Medicine, Physical Diagnosis and Diseases of the Chest, in the Memphis Hospital Medical College. Dr. Saunders is too well known to need introduction to the

profession of the South. He retired from the chair of Principles and Practice of Surgery four years ago, much against the wishes of the Faculty and under protest from the Board of Directors of the College, but has consented to become one of the Faculty again. The Faculty is to be congratulated on the addition of so genial a member and so wise a confrere. The Board of Trustees are to be praised for so wise a selection, and future classes have in store to be dealt to them the thirty years' experience of a painstaking diagnostician and a therapist who is well abreast of the times. May every addition to the Faculty be in keeping with the last—a good one.

A consignment of Koch's lymph, which had been forwarded from Berlin on Feb. 6, and apparently mislaid in the N. Y. customhouse for a week or two after arrival, was finally delivered to Messrs. Lehn & Fink, wholesale druggists, 128 William st., New York, on Feb. 28. This firm has spent several hundred dollars in cablegrams during the period since the first announcement of the lymph discovery to date, with the result that they have now secured 60 vials of 5 grams each. A 5 gram vial is diluted to a 1-10 of 1 per cent. solution, and furnishes 5000 injections. The vials are sealed, containing the reddish brown, syrupy liquid, which foams on shaking, and each vial is accompanied by explicit directions and caution over the printed signature of Dr. Libbertz. It is assumed that this consignment is the first imported into this country for commercial purposes. Messrs. Lehn & Fink sell the lymph only in the original 5 gram vials, preferring thus to guard originality to the physician.

CHANGE OF TIME OF HOLDING THE MEETING OF THE NATIONAL ASSOCIATION OF RAILWAY SURGEONS.—On account of the meeting of the American Medical Association at Washington, D.C., on May 5 to 8, it has been thought best by the officers of the National Association of Railway Surgeons to change the time of meeting from May 7 to April 30. The meeting will be held at Buffalo, N. Y., beginning at 10 A.M., and continuing to May 3. This change will give surgeons who have a long

distance to travel, an opportunity of attending both meetings on one trip. Further information can be had of Dr. E. B. Lewis, Kansas City, Mo., or Dr. A. G. Gumaer, Buffalo, N. Y.

THE *Journal of Gynecology*, a forty-eight-page monthly journal devoted to gynecology, obstetrics and abdominal surgery, will make its appearance in April, under the editorial guidance of Dr. Charles N. Smith, of Toledo, Ohio. We welcome him to the field of journalism and wish him success.

SOCIETY MEETINGS.—

The American Medical Association meets in Washington, D. C., May 5, 6, 7 and 8.

The Medical Society of the State of Tennessee meets in Nashville, April 14, 15, 16.

The State Medical Society of Arkansas meets in Hot Springs, April 29, 30, May 1.

The Mississippi State Medical Society meets in Meridian, April 15, 16, 17.

The Seventh International Congress of Hygiene and Demography will be held in London, August 10-17, 1891.

The Congress of American Physicians and Surgeons will be held in Washington, D. C., Sept. 22-25, 1891.

BOOK REVIEWS.

THE DAUGHTER: Her Health Education and Wedlock. By W. H. Capps, M.D.. F. A. Davis, publisher, Philadelphia. Cloth, \$1.

This little book is full of practical and sensible suggestions for the mother, and should find its way into every household. It treats of the four stages in the rounds of a woman's life: Infancy, girlhood, wifehood and maternity, in their proper order, some chapters on general bodily hygiene being appended.

DIABETES: Its Causes, Symptoms, and Treatment. By Chas. W. Purdy, M.D. F. A. Davis, publisher, Philadelphia. Cloth, \$1.25.

This is a resume of some of the modern literature on the subject, with clinical reports of the author's own cases. The Germans have been somewhat ignored in the bibliography; Schmitz, who has treated over 2300 cases at Neuenahr, is not even mentioned. The book is practical and readable, and deserves a wide circulation.

MICROBE OF RHEUMATISM.—Dr. Bordas, in *La Medicine Moderne*, gives the result of his researches in acute articular rheumatism, and claims for it a microbial origin. His investigations are reliable and his deductions logical; hence we may expect an important advance in the etiology of this disease and the rationale of its therapeutics.

THE TRANSACTIONS of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, session of 1890, have been received, and will be more extensively noticed in a future number of the JOURNAL. It is neatly gotten up, conveniently arranged, and contains some very good papers.

READING NOTICES.

Dr. Chas. L. Dana, Professor of Diseases of the Mind and Nervous System, Physician to Bellevue Hospital, Neurologist to the N. Y. Infant Asylum and the Montefiore Home for Chronic Invalids, recommends thirty grain doses of Chloral-amid (Neurasthenia," in *Post-Grad. Journal*, Jan., 1891), for insomnia, as a substitute for bromides, after using the latter.

John L. Waring, M.D., Camp Springs, Md., says: The prevalence of La Grippe has enabled me to test Febricide, and I consider it the most efficient remedy I have yet used in the pains of said malady.

R. H. Andrews, M.D., in *Med. Summary*, says: Dysmenorrhea is a medical problem whose difficulties have been solved by many physicians with the aid of Hayden's Viburnum Compound. It is a remedy of intrinsic value, and all who have not used it should do so at the first opportunity.

SAL-ASEPTIC, a preparation put upon the market by Mr. J. C. Treherne of this city, is an excellent combination of antiseptic salts, readily soluble in water, making at once an elegant, portable, and economical antiseptic.

Owing to inadvertence of printer, the old form of "ad" of the old reliable Bellevue Hospital Medical College has reappeared in the last two issues. Beginning with session of 1891-92, an attendance upon three regular courses is required for graduation.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., MAY, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

CLINICAL HISTORY

Of a Case Treated with Tuberculin—Demonstrated by Virchow.

DR. TURBAN, OF DAVOS, SWITZERLAND.

On the 18th of February Prof. Virchow demonstrated a specimen before the Berlin Medical Society from a case treated with *Tuberculin*. He said :

“ Gentlemen : I wish to show you another preparation relative to the Koch affair. Two reasons prompt me to do this : The first is because the patient was treated at a noted resort, from which we have, up to this time, never even heard of a death from any cause. The body was brought here for dissection. My second reason is because of the course of the case as we have it before us. This man has had thirty-six injections. The first was given Nov. 27th, and the injections continued until Feb. 2d. Death resulted Feb. 8th.

“ You will now see, going from above downward ; first, quite a recent ulcer at posterior extremity of left vocal cord. Then a little further down, alongside of the trachea, down to the root of the lung, an enormous mass of cheesy lymphatic glands, which are recently degenerated tracheal and bronchial glands. Further, along with a very limited affection of the apex of one lung, which can be considered of longer standing, a series of quite recent cheesy and ulcerative changes, evidently originated since the injections began. Next we have miliary nodules scattered throughout the lung, and between

these, in great abundance, that muchly disputed fresh catarrhal hepatization which has occurred elsewhere in the same manner as we find it." [Injection-Pneumonia—*Virchow.*]

This refers to a patient who was treated and died at my institution. Of fifty-three cases of lung tuberculosis treated by me according to Koch, representing all stages of the disease, this is the only death. Since the language of Prof. Virchow might be understood to mean that the patient had been previously but little affected, and that a grave miliary tuberculosis resulted from the injection, I will here give the clinical history to decide what damage the tuberculin treatment could have done in this case, and how recent the majority of the changes found at the autopsy might have been.

Mr. M. of Berlin, aged 19, has been under the treatment of Prof. Gerhardt and Dr. Eberty. Father died of glioma of central nervous system, mother of carcinoma. Patient always weak, anemic, and subject to catarrh. At the age of six years he had pneumonia, presumably of left apex. Later, glandular swellings. He grew rapidly. From 15th to 17th year, he accompanied and attended his sick father, then passed his college examination. Great nervousness. November, 1889, influenza. January, 1890, hemorrhages, cough, fever, night sweats, in March again hemorrhage, then considerable fever, up to 104°. From April to June he was in St. Blase. General condition improved, weight increased, decline but no cessation of fever.

June 24th, he came under my care. Status in June: Very tall, slender, anemic patient, thorax badly formed, pulse 100°, temperature 100.4°. Right lung: Considerable dullness over upper lobe, less over middle lobe. On the right side, anteriorly down to third rib, bronchial breathing with metallic and crepitant rales, downward to lower limit of lung diminished respiratory sound, fine crepitant rales. Posteriorly from above to middle of scapula bronchial respiration, diminished respiratory sound to lower angle of scapula. Metallic rales over spine of scapula, all kinds of rales down to lower limit of lung. Over left apex moderate dullness. Anteriorly accentuated vesicular breathing with crepitus. Posteriorly above roughened breathing down to inferior angle of scapula, pretty abundant rales over spina.

Tubercle bacilli in sputum. For some weeks after strength and weight increased, cavity in right apex increased in size, dullness in lower portions of right lung became more marked, expectoration increased, fever remained constant. Aug. 30th, profuse hemorrhage recurring for several days, during which time he lost, by actual measurement, three pints of blood. Pulse 170, great anemia and dyspnea, patient almost moribund. Two weeks later temperature rose to 104° from exertion in coughing, declining but rose again in November to 104° and over. November 24th, much emaciation, anorexia with retching, morning temperature to 102°, in the evening to 104° and above, despite antipyrin, pulse in morning 130, small, dyspnea. Physical signs showed cavity and entire right side involved. Left side, the whole upper lobe involved, the lower one suspected.

Hepatic and splenic dullness somewhat increased. Urine not albuminous. Nov. 27th, tuberculin treatment began with $\frac{1}{2}$ milligram. Reactions moderate, without dangerous phenomena. After the tenth injection there was a morning remission of fever to 99°. Temperature varied from this on between normal and 100° during entire treatment, it being no higher without antipyretics than before treatment was begun, after enemas of 45 grains of antipyrin. Appetite improved, but weakness and dyspnea continued to increase. December 31st, there was no notable lung change, appetite worse again. Feb. 2d, last injection of 6 milligrams. Feb. 4th, right lung unchanged, fine subcrepitant rales over entire left lung. Death on February 10th. I was not permitted to make an autopsy. *From Ber. Klin. W., 1891, No. 14, by Wm. Krauss, M.D.*

The Germicidal Properties of Blood.

A great deal of important information has lately been obtained on this subject, and Von Fodor, who has already contributed some useful papers, publishes in the *Centralblatt für Bakteriologie und Parasitenkunde*, vii, No. 24, some further experiments which he has made, especially directed to ascertain under what conditions the germicidal properties of the blood are at their highest, and in what way the composition of the blood affected these properties. From these it would seem that the

germicidal power of the blood increased with the rise of temperature, reaching its maximum at 38° to 40° C., and then again gradually diminishing. The author mentions an interesting fact, that is, that the individual predisposition of any animal to an infectious disease seemed to stand in direct relationship with the germicidal power of its blood. Further researches were directed to the influence of drugs on the power of the blood to destroy germs. Hydrochloric acid had no effect. After treatment by tartaric acid a marked decrease was noticed, and the same result was produced by quinine. Common salt and carbonate of ammonium caused a slight increase of the power, the phosphate of sodium a more marked effect, while the carbonates of sodium and potassium produced a very remarkable increase. From the experiments the author concluded that any drugs which cause increased alkalinity of the blood considerably raised the resisting power of the organism against the inroad of bacteria.—*London Lancet.*

Dangers of Domestic Remedies.

Popular delusions, although frequently possessing farcical characteristics, mostly end in producing disastrous results. The craze for economy is widespread, and perhaps inevitable when the income is small and expenses great. The general practitioner protests against the prescribing chemist, and the chemist in turn is never-ending in his denunciation of "stores." According to their means and opportunities members of the public glide down the scale from the top to the bottom, ever seeking a cheaper market. Necessarily a certain amount of danger attends the downward path, but the danger is greatest when the individual essays both diagnosis and treatment, especially if he attempts to prepare his own remedies. Doubtless there are some simple modes of treatment which may be safely carried out; but in the oral transmission of the details of domestic medication the risk of a missing link has always to be reckoned with, and to the experienced onlooker the problematic nature of the sequel is intensely interesting. Happily, it is not often that ignorance is so fatal as in the recent instance in Cheshire. Two men have died and a third lies in a precarious state, as the result of attempted self-medication.

Imagining that they were suffering from itch, the advice of a fellow-workman was taken, and some nitric acid and quicksilver were procured, mixed, and applied to the skin. The druggist had labeled the bottle "Poison," but he does not appear to have made any inquiry as to the purpose for which the substances were to be used. A verdict of "Death from misadventure" was passed, and strong comments on the ignorance displayed were made by the coroner. To attempt to fathom the stages by which such ignorance has been reached may seem futile, and yet it appears within the bounds of possibility that this sad accident is really the result of confusion. Ammoniated mercury ointment and nitrate of mercury ointment have widespread uses. It seems just possible that with lapse of time simple directions for the preparation of the former have been muddled into the latter, and that in place of a precipitate a highly corrosive and poisonous liquor has been made. The substitution of nitric acid for ammonia, both being in common use, seems a fairly natural error, although the selection of the liquid mercury for the solution of the perchloride of mercury is more difficult to follow. As it stands, the case sufficiently demonstrates the dangers and folly of attempting to compound remedies in complete ignorance of the properties they possess.—*London Lancet*.

The Treatment of Diphtheria.

In a note upon the treatment of diphtheria, which appeared in the *British Medical Journal* of January 24th, Dr. Knapp considered that the success of his procedure depended upon the antiseptic properties of a mixture containing iron, soda and iodine. Without wishing for one moment to doubt the accuracy of his conclusions, I would venture to suggest that the remarkable efficacy of the remedy was due rather to the iron which it contained than to its salicine or iodine components.

The perchloride of iron has always enjoyed a high reputation as an empiric remedy for diphtheria, and it is now several years since its introduction into the London Hospital in a modified form led to a very considerable reduction in the mortality attending the disease. In the method to which I allude, the

mode of administration of the drug was modified in two important particulars—not only was the dose augmented and repeated every hour, but at the same time a few grains of chlorate of potash were added to the solution, with the view of encouraging the formation of the strongly antiseptic gas (eu-chlorine), which would dissolve in the mixture and exert a local action upon the seat of the disease. The formula runs as follows: Ferri perchlor., ʒ vj; pot. chlor., gr. xl; glycerin, ʒ iv; aqua, ad ʒ viij. M.

Whether the supposititious chemical action really takes place or not is uncertain, but no one who has had occasion to use the prescription in cases of diphtheria will deny that its effect upon the course of the disease is extraordinary. The mixture is administered every hour, day and night, the patient allowing the medicine to remain for a few seconds in contact with the throat before swallowing it, and refraining from drinking any fluid for at least ten minutes after the dose has been taken. For the rest the treatment consists in the free exhibition of stimulants and of a highly nutritious diet. Sprays of sulphurous acid, quinine, antipyrin and salicylate of soda appear to exert no influence whatever upon the course of the malady.

Under this system of treatment the course of events is fairly uniform; the membrane ceases to spread after the lapse of a few hours, and has usually disappeared by the end of the second day. When this result has been effected the medicine must be cautiously reduced in amount and in frequency of administration, but in no case should it be abruptly discontinued, since it has happened that in such cases the membrane has reappeared at the moment that the disease was supposed to have received its final dismissal.

I have before me the notes of twenty-two adult cases treated in this manner; of these, twenty recovered and two died; seven of the successful cases suffered from subsequent paralysis. I might also remark that in one case, where tracheotomy was performed on account of laryngeal implication, the patient's life was undoubtedly saved by the persevering and energetic action of the house-physician, Dr. Daniels, who himself hourly applied the mixture to the diseased mucous membrane.

Persons suffering from diphtheria appear to be exceedingly

tolerant of iron, as in no case was colic or constipation complained of, and in only three instances did vomiting ensue at the commencement of the treatment. In cases of infants the remedy is practically useless, the cases generally dying of exhaustion before the medicine has had time to take effect.

From the numerous facts at our disposal there can be no doubt that the administration of certain preparations of iron in large and repeated doses is capable of exerting a material influence upon the course of the disease; and it behooves us to determine by more extended trial the true value of its various antiseptic combinations in the treatment of so fatal a malady as diphtheria.—*W. Soltau Fenwick, M.D., British Medical Journal.*

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

EMPYEMA.

BAYARD HOLMES, M.D., CHICAGO, ILL.

No surgical procedure is so little studied and so often overlooked, with such deplorable consequences, as empyema.

The indications for operating in cases of empyema depend *very largely* on the character of the infection. It may be stated in general terms that the serous pleuritic effusion is, from the nature of the origin of effusions, charged with the primary infective material; thus: in specific pneumonia, with the pneumococcus; in malaria, measles and influenza, with the organism which gives rise to the pneumonias of these diseases. These infective materials are incapable of producing suppuration under any circumstances, and their infective powers are limited in destructiveness and in time. Such serous effusions are ultimately completely absorbed without any loss of function in the parts concerned.

Suppurative empyema is due, as a rule, to the pyogenic staphylococci or streptococcus. A great number of investigators have found these alone or mixed with the infective

parasite of the primary disease. It matters little which one of the pyogenic bacteria is the originator of the suppuration. It is in any case essentially progressive and destructive; there is only the remotest hope of the absorption of the pus. Two methods of termination have been observed. The pus has either been discharged through the thoracic walls or into the respiratory passages.

Besides the non-destructive pleuritic infection and suppurative pleuritis or true pyothorax, there remains one other important pathological and clinical manifestation of pleuritis, that is tubercular pleuritis.

Tubercular empyema may follow the perforation into the pleural cavity of a tubercular peripleuritic abscess going out from a tubercular osteitis in one of the ribs or vertebræ, or from a tubercular mediastinal lymph gland, and pyogenic empyema may arise from true pus cavities in the same localities.

Many authors have held that the presence of pleuritis without traumatism, is *primæ facie* evidence of tuberculosis, but this Dr. A. A. Smith* has shown from careful clinical observation followed in many cases by post mortem examination, is not supported by the carefully considered facts. Pyemic pleuritis occurs in the course of osteo-myelitis, carbuncle and other suppurative diseases, and usually has the staphylococcus pyogenes aureus in the exudate. The streptococcus pyogenes is usually found in those cases which occur in puerperal sepsis or wound diseases. In tubercular pleuritis the tubercle bacillus is found only with difficulty. Tubercular pleuritis originates from infection of the pleura from neighboring tubercular organs, and principally from tubercular foci in the lungs. While it has been observed without other antecedent forms of pneumonia, it is prone to follow non-tubercular and non-suppurative disease.

True or pyogenic empyema may arise from the puncture of the pleural cavity with an infected instrument. It was occasionally declared before the antiseptic period, and even well into it, that thoracentesis was followed, as a rule, by suppuration. This is denied by the methods and practice of mod-

* Medical News, July 9, 1890.

ern operators. It does, however, occasionally occur. Gun-shot wounds and stabs with sharp instruments without perforation of the lung and without pneumo-thorax is occasionally, if not as a rule, followed by suppurative pleuritis. That the perforation of the lung and consequent pneumothorax is not invariably followed by infection of the cavity is due to the germ-free condition of the air which has traversed for some distance through the moist bronchioles.

It must be remembered that in cases of pyemia, pyothorax may arise, and is to be accounted for in the same manner as in other forms of sepsis.

Marfau reduces the forms of empyema etiologically into three categories: 1. Those that follow pneumonia and are characterized by the presence of the pneumococcus in the exudate. 2. Those that occur in the course of pyemia and contain the staphylococcus or the streptococcus. 3. Those that follow tuberculosis and contain the tubercle bacillus. The indications for operation, depending on the quantity of effusion, differ in respect to urgency the same in all kinds of empyema. Thus, the effusion may be so great that it diminishes the lung capacity beyond the limit of existence. Life may thus be threatened in a one-sided effusion of such extent that it encroaches upon the cavity of the other lung, or when the opposite lung is already useless from pneumonia or other causes. In such cases the effusion must be immediately removed on account of its mechanical danger to life. The same may be said of such cases as are complicated by great interference with the circulation of the blood. Effusions, of even small extent, in both pleural cavities, become dangerous, especially when complicated with pneumonia or bronchitis.

I will attempt here to demonstrate the action of a considerable effusion in one of the pleural cavities of a dog. In order that the circulatory complications may be at a minimum, I will use the right cavity. This I will fill by inserting this canula between the fourth and fifth rib and midway between the sternum and spine. A considerable quantity of warm water flows into the cavity with great rapidity, and by raising the percolator a still larger quantity flows into the thorax, compressing the lung and pressing the mediastinum over the left

side, diminishing the capacity of the left lung. This is manifest in the rapid breathing and the rapid and irregular pulse.

Such an interference with the function of the lung calls for immediate evacuation of the fluid without regard to the nature of the fluid or the character of the coincident inflammation.

There is another less urgent, but not less positive, indication for operation in those cases of effusion which are infected with pyogenic bacteria. It matters not what the original effusion may have been, or what the condition of the patient may be in other respects, the presence of a suppurative disease in the pleural cavity, or in both of them, is a positive indication for immediate and permanent removal. The suppurative disease is progressive and destructive, and never terminates favorably except in drainage and cicatrization of the suppurating surfaces, and closure of the cavity. The temporary or interrupted drainage of the pleura is not adequate in such cases, and cannot meet the positive indication.

The treatment of tubercular effusions into the pleural cavity may be stated in almost as positive terms. It is assumed that the tubercular infection is unmixed with suppurative disease. The *locus* of tubercular disease is assumed to be in the lung and beyond the power of the operator to remove. The effusion is not usually large, and is apt to be circumscribed by adhesions. The wall of the cavity is covered by tubercular granulation tissue, and is sometimes found little more than a tortuous tubercular channel. Drainage by free incision is followed sooner or later (and in spite of the most careful antiseptic treatment) by pyogenic infection of the tubercular tract, and, when the opening begins to close, by symptoms of sepsis. Neither simple incision and antiseptic irrigation nor the excision of a portion of a rib and *evidement* of the cavity is followed by a speedy recovery. The tubercular disease in the other part of the thorax is apt to speedily carry off the patient. It may be said that there is no positive contra-indication to operation on tubercular empyemas, and that they may be operated on when there is any special indication. This special indication may be found in the size of the cavity, in the accessibility of the original focus, or in the otherwise healthy condition of the patient. That the drainage of tubercular pleu-

ras should not be undertaken with any favorable prognosis, except in the young, and when these follow tubercular disease in an accessible bone or other part, and is not accompanied by an extensive disease in other parts of the thorax, passes without saying.

In removing pleuritic effusions a great obstacle is met in the contractility of the lung and its tendency to immediately collapse and retract to the upper and posterior part of the thorax under the pressure of the atmosphere. This is a difficulty nowhere else met with, and one which has long been looked upon as sufficient to interdict the opening of the pleural cavity under any circumstance. This is termed the elasticity of the lung, and it has been estimated by Hutchinson to be equal to one-half pound to the square inch. The pleural cavity may be opened into a partial vacuum and the collapse thus avoided, or the function of a single lung may be dispensed with. Thus we have two principal methods of draining the pleuræ—the one into a vacuum, and the other against a full atmospheric pressure.

I shall attempt to show you with the animal before us just how great is the contractile power of the lung of the living dog. Taking the percolator down and placing it some inches below the canula, the fluid flows rapidly from the thorax into the percolator, as is indicated by the height of the water in that vessel and by the greater ease in respiration which the dog manifests. Fourteen inches is $\frac{1}{4}$ of 348 inches, or $\frac{1}{4}$ of an atmosphere, which corresponds very well with the estimation of Hutchinson for the human lung.

Of all the methods of removing a pleuritic liquid effusion, that originally proposed by Stanski is the simplest and attended with the fewest dangers. This is the aspiration with a small trocar which has come so much in vogue since the perfection of the apparatus. For effusions which are infected with micro-organisms of a non-destructive character, and for those effusions which are removed solely on account of their extent, it is the most serviceable and desirable method. It is not to be used in cases of pyogenic infection with the hope of effecting an arrest of the destructive disease. However, when so modified as to be used continuously, it may be of the greatest

advantage to those adults who can have the necessary attention from skilled nurses or physicians, and when it is instituted early enough to preserve the elasticity of the lung. When advantage is taken of the weight of a column of antiseptic solution for the aspirator, this becomes the recently much-lauded method of Buelau. Whether it can be depended upon for the complete removal of the products of suppurative pleuritis, experience has not yet adequately demonstrated. It seems to promise the most favorable results when instituted early and so vigorously as to remove nearly all the effusion, and, at the same time, bring the granulating pulmonary and parietal pleural surfaces together and secure a rapid obliteration of the cavity. It would accomplish enough if it would do this and limit the effusion to a small cavity, which could be afterward drained by incision. It is the only method which can be used in bilateral pleurisies of great extent. It commends itself to the patient as a less formidable operation than incision or rib-resection, and would, therefore, be likely to be undertaken early. With a proper apparatus, to be made from any exploring aspirator and a long rubber tube, it is within the reach of every physician, and the difficulties and dangers of thoracentesis with constant aspiration are not great. The feeding of the siphon with an antiseptic solution on the principle of a Sprengel pump, as here proposed, may be found to be a safeguard in filling the tube which might become clogged or full of gases.

The following method is employed by Furbinger in such cases of pleuritic exudations as are of long standing, and with little pressure. He takes advantage of the sucking power of the mouth to remove the fluid. A glass tube entering the bottom of an irrigator bottle is connected with the trocar by means of a rubber tube. Another tube from the top of the bottle is used as an exhausting tube.

I will try to evacuate the air which has purposely been allowed to enter this dog's pleura. The percolator is hung up three or four feet above the dog's body. An aspirator needle having a calibre of about a millimetre is now put on the end of the delivery tube. This needle is thrust into the rubber tube which connects the canula in the thorax with the

basin below, and it is pointed downward. As soon as the fluid is allowed to flow from the percolator it fills the waste tube, and the weight of this column of water aspirates the air from the thorax and may be seen escaping in bubbles from the end of the tube. Percussion over the lungs now demonstrates the absence of air in the thorax and the presence of the expanded lung. The only remaining method of treatment consists in free incision and drainage. This is accomplished in a number of ways.

An incision is made in the axillary line and at the upper border of a rib, into the center of the effusion. The finger is passed into the incision and any information gained which the palpation affords. A rubber or other drainage tube is passed on the finger or forceps into the cavity and placed in the most advantageous position for drainage. The cavity may or may not now be washed out with a warm antiseptic solution, and carefully dressed. This antiseptic irrigation and dressing are to be repeated every day with the most conscientious care and scrupulous antiseptic precautions. At the end of a week or two the discharge of pus will be found to have disappeared. Then if the method of Profs. Quine and Bouvert is to be followed, a still more careful antiseptic irrigation is to be employed, and the tube removed entirely, and the hole in the side stopped with a stick of iodoform. The dressing is left on for two weeks or more, and the air and other contents of the cavity left to be absorbed by the now clean and healthy pleura. There is no reason why this should not fill all the indications of any operation, viz.: First, to evacuate the pus. Second, to prevent the production of more purulent matter, and third, to restore the respiratory apparatus to its normal condition. I must admit that while there is no reason to think that the pleural cavity may not thus be sterilized, our experience has been so unfortunate that until Prof. Quine reported his cases it had not been regularly practiced.

At the German Congress for Internal Medicine referred to, Mosler alone advocated simple incision and drainage. The treatment most favorably received there was Buelau's method and the subperiosteal excision of a rib and drainage without antiseptic irrigation.

As to the site of operation, it must be admitted that a great many mistakes have been made both by writers and operators, and Godlee alone has put the matter exactly. The retraction of the diaphragm is more rapid than the retraction of the lung, and the opening into the thorax should be at least as high as the center of the effusion in all cases in which drainage is made against the atmosphere. In case drainage is made into a vacuum after the manner of Buelau, the locality of the fissure between the lobes of the lung presents some obvious advantages. Dr. Marshall's muscle-free spot is certainly too far forward. The drainage can be better accomplished in the axillary line notwithstanding the amount of muscle and fascia.

The second method of drainage against the full atmospheric pressure is incision, counter-incision and through and through drainage. This method certainly secures better drainage and gives an opportunity for irrigation without danger of distending the cavity and interfering with the retraction of the lung. It hardly offers the best means of restoring the respiratory organs to their normal condition. It is the method which would be least likely to be received by the patient, and it has few advocates except in England.

The subperiosteal excision of a large portion of a rib and the drainage of the cavity by one or more tubes through the defect thus established. This is the method to be used in all cases which cannot have the care of a skilled nurse and the care of a careful and scrupulous physician. The drainage is established in the most comprehensive manner and is accompanied by the fewest dangers. It is the method best adapted to those cases that must take care of themselves.

Through and through drainage and insufflation of dry air. This method offers the same advantages as perrigation, with the advantage of scab formation and destruction of the infection by desiccation.

The perflation of air has also (1866) been practiced by Roser, and later, combined with antiseptic liquid irrigation, first by Quinke and then by Ewart and Fitzroy.

When pyogenic and non-tubercular empyemas are treated by any one of the preceding methods early in their formation, there is the greatest hope of a restoration of the functions of

the respiratory apparatus to its integrity. When treatment is inadequate to meet the indications, or when it is delayed, such serious changes take place in the thorax that new indications arise. Thus spontaneous discharge of the pus may take place through the bronchi, and the cavity formerly filled with pus will come to be occupied with pus and air. If the cavity is small, or favorably situated, it may drain sufficiently into the bronchus to close, and recovery will be nearly perfect. Again, if drainage is not instituted early in the course of the disease, the lung will be pressed back and up and adhesions will be formed between the walls of the thorax and the collapsed and shrunk lung, which will prevent its ever being able to fill the pleural cavity again. This compression, with coincident infection, may result in gangrene of the lung and in the invasion of the empyemic fluid and the dead tissues by saprophytic bacteria and other organisms, and the production of a complicating sepsis of a grave nature. This invasion takes place from the bronchial tubes, which are always filled with saprophytic bacteria and other putrefactive organisms.

When such adhesions or such destruction has taken place before the case comes to treatment, or when the methods instituted have been inadequate to close the cavity entirely, it may be necessary to depress the thoracic wall so that it will come in contact with the surface of the collapsed lung. This is done by the excision of a sufficient number and extent of ribs to meet the indication. (Estlander.)

This review of the etiology of pyothorax makes it possible to formulate the following positive indications for operation:

1. Serous effusions must be removed whenever they interfere with respiration or circulation by their extent, or when they show a tendency to remain after recovery from the primary disease which gave rise to their presence. The aspirator may be found sufficient in these cases, but when inadequate after repeated trials, one of the more radical and permanent methods of drainage must be resorted to.

2. Pyogenic and tubercular effusions of large size or of small size must be immediately and permanently drained.

3. Drainage into a vacuum must be practiced in all cases of bilateral effusion without adhesive limitation, and in those

cases of unilateral effusion in which the opposite lung is so incapacitated as to be inadequate for respiration. It may be practiced in all cases in which the expansibility of the lung is intact and the patient can have skilled attention. It will be found of the greatest value in limiting the extent of the empyemic cavity, which may be afterward drained against the atmosphere.

4. Intercostal incision and antiseptic irrigation of the cavity to a point reaching a practically aseptic condition of the same, and permanent closure of the incision, is indicated when the expansibility of the lung is intact and the skill of the operator is sufficient.

5. Rib resection and thorough drainage should be practiced in all cases of tubercular effusion, and pyogenic effusions which are not treated early, or those occurring in patients who can not have the best of care.

6. Operation must never be delayed on account of the extreme condition of the patient, nor on account of the presence of tuberculosis in one or both lungs, nor on account of the presence of pneumonia on the same side. All of these conditions are additional indications for radical operation.

SURGICAL CLINIC

At Memphis Hospital Medical College, March, 1891.

Enchondroma of the neck—Dentigerous cyst of lower jaw—Carcinoma of mamma—Fibroid of the antrum.

BY W. B. ROGERS, M.D.

Professor of Surgery.

Reported by I. H. EDGINGTON, M.D., First Clinical Assistant.

Case I. Frances Neal, female, colored, age 26 years, presented a tumor on left side of neck occupying nearly the whole of the antero-lateral cervical region. Tumor appeared lobulated and extended from mastoid process to sterno-clavicular junction. There appeared to be no deep attachments, though the skin was attached at two points. There was no tenderness on pressure—no pain nor tendency to inflammation or ulceration. To the feel the mass was irregular, lobulated, and very dense, and its growth dated from eight years back.

It began as a small, movable mass, in the sup. carotid region. No treatment had ever been attempted. General health of patient was excellent. A prolongation of the mass seemed intimately attached to the thyroid cartilage by means of the thyroid gland, giving rise to a suspicion of the tumor being an enlargement of that gland.

The tumor was pronounced glandular in origin, and probably fibroid in structure.

Operation. An incision extending from mastoid to sterno-clavicular junction was made, and supplemented by a transverse cervical one at level of thyroid gland. The integument, fasciæ and platysma were turned back, and after an hour's careful dissecting the entire mass was removed. The sterno-cleido muscle was found very attenuated and pressed behind the growth, which extended down to the sheath of the great vessels. No artery of importance was cut, and only a few ligatures were applied. The patient made a rapid recovery.

The tumor on microscopical section proved to be an enchondroma.

. *Case II.* Jane A., colored, 29 years of age, referred by Dr. Weissinger, presented a growth of the horizontal ramus of right half of lower jaw. The general health was good, though she suffered much pain. The tumor dated back six years, when its origin was attributed to toothache. Several teeth had been extracted. On the alveolar aspect the growth presented some features of an epulis—appeared to grow up from within the alveolar process, displacing the teeth; but the entire ramus was increased in thickness, and, while as a whole the tumor was firm and dense, there was one cyst-like point on the facial surface, and through which an opening had once been made. Tr. iodine injected. There was no tendency to ulceration, no glandular enlargement.

The tumor was pronounced non-malignant, and cystic in nature. A careful enquiry as to number of teeth extracted and their location was made with a view of deciding on the probability of a misplaced tooth being the cause of the growth, but the answers proved wholly unsatisfactory. Nor was it possible to decide between a single cyst and cystic disease of the bone (multilocular cyst).

Operation. A section was made with bone forceps, through the alveola at the anterior portion, the epulis-like portions of the tumor removed, thus exposing a cavity in the bone lined by a membrane, and containing a gelatinous fluid. The cavity was emptied by means of a curette, and on its floor posteriorly was felt a projection, which on removal proved to be an incisor tooth, growing up directly under the second molar. The cavity was packed with gauze. The bleeding was insignificant, and the patient left for her home one week later.

This proved to be a dentigerous cyst, due to the misplaced incisor, which was also an adventitious tooth.

Case III. Mammary tumor. Lucinda Cheeks, colored, 47 years of age, mother of nine children, presented a growth in the left mamma. Had never had mammary abscess, though had had sore nipple on left mamma many years ago. In July, 1890, she first accidentally discovered a small nodule in the upper outer segment of left mamma. No pain or inconvenience was felt until several months later, when the nodule had increased in size to that of a small hen egg. She now complained of pains occurring in the tumor and darting to the axilla and shoulder. At this examination the tumor was the size of a man's fist, involved the outer two-thirds of the mamma, was firm and resisting, and painless to the touch. The skin was not really adherent, though slight infiltration was evident just to outer side of nipple. The entire mammary mass was freely movable, showing no pectoral adhesions. There was some infiltration of glands along the pectoral muscles, though those high in the axilla could not be made out. The rapid growth, dense composition, tendency to skin infiltration, and glandular implications, age of patient, pain experienced, evident rapid encroachment of diseased mass on all immediately surrounding tissues, led to diagnosis of carcinoma. Authorities were cited, showing that 90 per cent. of all mammary tumors were malignant at their origin, or else presented features of malignancy sooner or later, and that the safe plan was to excise the entire mammary gland.

Operation. The tumor and mamma were removed by an elliptical incision—every vestige of the mamma being included—and all fascia the leastways infiltrated, or in close proximity

to the diseased mass, was carefully cut away, leaving the pectoral and intercostal muscles bare. An incision was then carried along anterior wall of axilla to its junction with posterior wall, and the axillary space laid bare. All fascia and glandular tissues were removed as high up as the axillary vein, which was plainly seen. After the thorough clearing out of the space, drainage was arranged by rubber tubes and gauze, and the wound carefully closed, and patient sent to ward.

Microscopical examination by Dr. Krauss showed carcinoma, scirrhus. Three weeks later patient was sitting up, wound practically healed.

Case IV. Jane Bay, 42 years, with family history and previous general history negative, presented an enlargement of left sup. maxilla, the facial aspect protruding. She stated that the enlargement began about three years before, and had gradually increased to its present proportions. No pain had been felt; nor could she cite any cause for its origin. Had not had toothache to any extent. Examination per orem: the mucous membrane natural in appearance; teeth natural and in situ; very slight bulging in left half of roof of mouth, hard to pressure; just above the teeth (left maxilla) there protruded (submucous) a rounded, smooth, very dense growth, the size of a small guinea egg. No evidence of a cyst was detected. All the teeth were present.

The slowness and painlessness of the growth was evidence of non-malignancy, and a diagnosis of fibroid tumor in the antrum was made.

Operation. An incision two inches long was made horizontally across the tumor just above the alveola; the shell of bone covering the growth (outer wall of antrum) was cut through, and with elevator turned aside, and the tumor exposed. By means of handle of scalpel the tumor was turned out of the antrum whole.

The growth was distinctly bounded by the walls of the antrum, which cavity was being gradually dilated by pressure of the growth. The cavity was packed with gauze; four weeks later the cavity had nearly healed by granulation. The growth proved a pure fibroid.

DEPARTMENT OF
GYNECOLOGY.CONDUCTED BY
T. J. CROFFORD, M. D.

COMPOSITE TEMPERATURE AND PULSE CHARTS

Of Forty Cases of Abdominal Section.*

The question "What constitutes a natural temperature and pulse curve during the week following an abdominal operation?" is of the utmost practical importance.

During the week following an abdominal section every surgeon carefully scans the record of pulse and temperature, and often thus determines at a glance the well- or ill-doing of his patient, sometimes even anticipating serious changes in the general condition which first show themselves here; or again the pulse and temperature record is used as a standard to measure the gravity of other symptoms, which can be neglected as long as the pulse and temperature are low, while with an elevated pulse and temperature, they are sure signs of danger.

Some writers have insisted that the *temperature* alone is the better index of the presence or absence of inflammation going on in the peritoneal cavity, others again look more to the *pulse*, while still others insist that the *pulse and temperature* must be studied conjointly. All, however, agree on the importance of a record of both curves.

In order to discuss the temperature and pulse curves intelligently and to decide whether they are high, low or normal, we must naturally refer to some standard. This by a tacit understanding has been taken to be the pulse and temperature of health. But that such an assumption is wrong, I shall show by the following record.

To determine the *standard* with which our comparison should be made, I have prepared a table by compounding the pulses and temperatures of twenty-six cases of abdominal section, running a smooth natural course throughout the conval-

* Howard A. Kelly, M.D., in the Johns Hopkins Hospital Reports.

escence. In all of these cases the wound healed without suppuration, there was no marked tympany, the bowels were moved at about the fourth day, and the temperature did not in any instance rise above 100.5° F. (38° C.)

A resultant curve of all of these twenty-six cases was obtained by adding up in twenty-six rows the morning and evening temperatures, and in twenty-six other rows the pulses of all the cases, and then dividing each one of the four resultant numbers by twenty-six, when the average was found. In this average every trace of the individual peculiarity was eliminated, and thus what may be termed the composite chart representing a simple normal laparotomy was obtained.

It will be noted at once that the temperature is on the whole above the normal temperature of health.

Starting at 98.3° F. in the morning just before the operation it rises four-tenths of a degree by evening. On the second morning it is three-tenths of a degree higher still, and by evening of the second day it has reached 99.5°, the highest point it touched at any time. The third day witnesses a drop to 99°, and the evening rise is only to 99.3°. The fourth day is altogether exceptional, for starting with a morning temperature of 98.7°, the temperature in the evening is 98.2°, the only instance in which evening temperature is lower than morning. For the remaining three days the temperature varies slightly, between 98.5° and 99.1°.

The pulse ranges from 76 to 97, being highest on the third evening when the temperature also is highest, and lowest on the morning of the fifth day, following the greatest depression of the temperature. Twenty-one beats for the pulse, and one and three-tenths degrees Fahrenheit for the temperature, are the widest limits of excursus of these two important indicators of the progress of the patient in the average laparotomy case, doing well in all respects.

Pushing the inquiry a little further and adding up the fourteen morning and evening temperatures thus given, and then dividing by fourteen, reveals an average bodily temperature for the whole week of 98.8°, and the same treatment of the pulse record gives an average pulse of 85.

While thus twenty-six cases showed an average even low

temperature not once reaching 100° , there were ten cases out of the fifty presenting a chart characterized by *high* temperature, without being abnormal in any other respect.

Dr. Farr has constructed a composite chart of these ten cases with the following result. In but three of these cases was the temperature taken for three days before operation. In these it ranged between 98.6° and 99° . The individual element is therefore not eliminated from this part of the chart, and it remains to be seen whether a larger number of cases will also show a greater elevation at this period.

The temperature is lowest in the morning just before the operation, when it is 98° ; after the operation there is a steady rise until by evening of the second day it reaches 100° , instead of 99.5 , as in chart No. 1. Almost the whole of this temperature record throughout remains *above* 99° , while in chart No. 1 it was *below* 99° . On the fourth day there is also no exception to the fact that the evening temperature is higher than the morning, as in chart No. 1. The evening temperature on this day is 100.1° . It is highest as well as lowest on the fifth day, jumping from 98.9° in the morning to 100.4° in the evening.

The pulse rate more or less closely parallels the temperature curve, being lowest in the morning and highest in the evening. The greatest excursus is from 87 to 96, on the fifth day, when the temperature rises highest. The limit is from 84 to 96, a range of twelve beats, in marked contrast to the greater range of twenty-one, in the twenty-six normal cases.

This interesting comparison between these two groups of cases, one in every respect the simple natural recovery, the other normal in every respect, except in so far as it is characterized by the elevation of temperature, may be pushed further by comparing the average temperature and pulse of each for the whole week.

By adding the fourteen morning and evening temperatures and pulses of chart No. 2 in four columns, and dividing by fourteen, we get the following result: The average temperature for the whole week is 99.4° , only six-tenths higher than the normal cases, and the average pulse is 87.

There is much of positive value to be learned by these charts. In the first place we see that with present methods

it is natural that there should be morning and evening variations of temperature in the simplest cases, the chart should therefore be expected to show at least a zigzag between 98.2° and 99.5°.

On the other hand about one case in four rises to 100°, and does not drop at once to stay down, but keeps rising and falling for several days, almost reaching 100.5° as late as the fifth day.

It is evident that in the absence of serious abdominal symptoms this feature of the case should never alarm the operator.

The result of similar treatment of four cases of tubal and tubo-ovarian abscess (pyosalpinx) presenting acute symptoms before operation is particularly interesting.

It will be noted in this group that the temperature taken for five days before operation shows an extraordinary uniformity of rise and fall, from 99° in the morning to 101 in the evening, the average evening temperature for the five days being 100.8, and the average morning temperature 99°, or adding these together and dividing by two, the average bodily temperature of these cases before the operation was 99.9°.

The effect of the operation is evident in a glance at the broken curve which follows; for 24 hours the temperature drops, reaching 98.9°. On the evening of the second day it rises to 100.5°, and on the third, fourth and fifth days plays about 100°.

The average evening temperature after the operation is 99.9° and the average morning temperature 99.6°, or the medium bodily temperature 99.7°.

It is evident that the effect of the operation is not to remove all febrile disturbance at once. The bodily heat for the first few days is only reduced from 99.9° to 99.7°—two-tenths of a degree.

The most remarkable effect and one which we know practically to be of the greatest benefit, is the breaking of the hectic points on the chart. The pulse before operation averages in the morning 96.5, and 97 in the evening, while after operation it is 98.5 in the evening, and 102 in the morning.

The chart is of great value suggestively.

In the first place although but four cases are here com-

pounded, I believe that with further investigation it will be shown to fairly represent the type of pus cases with marked febrile symptoms.

It is also demonstrated that these cases by no means assume the type of a simple laparotomy as soon as the pus is taken out. The period of defervescence is often a very slow one.

It is not my wish to attach undue importance to these three charts, based on a few cases, but to claim importance for this method of studying these cases before and after operation. A method which will obliterate the individual peculiarities of any one case, and develop those features which are characteristic of the disease as an entity, furnishes a new and valuable means of comparison of diseases among themselves.

**DEPARTMENT OF
DISEASES OF THE EYE AND EAR.**

CONDUCTED BY
JAMES L. MINOR, M. D.

ARTIFICIAL EYES.

JAMES L. MINOR, M. D., MEMPHIS, TENN.

As the organs of vision are the most prominent features of the face, and contribute more largely to the character and good looks of the individual than do any others, it is not strange that attempts to conceal the loss or mutilation of an eye have exercised those so afflicted. Such a deformity may mar the happiness and interfere with the social habits and relations of an individual through life. And as many people dislike visible deformities in those around them, the loss or mutilation of an eye may seriously interfere with one's business relations and opportunities. And again, when the eyeball is lost or atrophied, the lids, losing their support, allow the lashes to turn in and irritate the conjunctiva, and the secretions to accumulate in the cavity of the orbit—annoyances which an artificial eye rectifies. If the benefits of concealing such deformities be important, how much greater is the boon of correcting the defect with an artificial eye which will equal the good one in appearance.

The early history of artificial eyes is obscure, but that their use long antedates the Christian era is proven by the fact that painted pieces are found between the lids of many Egyptian mummies; and in museums of antiquities statues of gold and of silver are provided with gold-enameled eyes. In spite of their antiquity, however, the art of making them progressed slowly, for even as late as the 16th century the method was to have an eye painted on a metallic disc, which was applied in front of the closed lids and retained in position by springs going around the head. The work of Ambrose Pare has a figure representing this form of artificial eye, and the same author represents a plate of enameled gold, colored like the normal eye, and intended to be placed between the lids. No painter's brush could depict the fullness and curve of the cornea, however, and such pieces were not only immovable, and in themselves deformities, but they were often hurtful. Later, attempts were made to give the metallic discs the form of a shell, better adapted to the cavity of the orbit; but these, too, were injurious and failed in practical results—the weight of the metal constituting an insurmountable objection.

Finally, enamel eyes were made and used at first for ornamenting the heads of dolls and marionettes, or the mounted heads of animals intended for natural history collections.

Development in the manufacture of artificial eyes at last produced pure enamel or glass shells, of extreme lightness, and of exact imitation of natural ones in color, shape and movement—the transparent cornea and anterior chamber, the radiating form of the iris, the pupil, the sclerotic and the vessels of the conjunctiva—with such a degree of perfection that it is often difficult and sometimes impossible to distinguish the fictitious from the natural eye.

Boissonneau of Paris (1840 to 1866), was the first to perfect and systematize the manufacture of artificial eyes. His pupil and associate in Europe, P. Gougelmann, who was the first and for many years the only maker of artificial eyes in this country, is now the most noted artist of his craft, and still the vigorous head of the firm of Gougelmann & Co., of New York city.

Artificial eyes are often worn over a shrunken globe, and here the best cosmetic effects are observed, but sympathetic ophthalmitis is an ever-present danger in such cases, and it is always safest to practice enucleation before an artificial eye is used. Great skill is often required in fitting the shell to a diseased, contracted or deformed orbit, and in such cases it is best for the individual to see the manufacturer and have the piece made to meet the requirements. Indeed, it is always best to do this, but as artificial eyes are made in only a few of the largest cities of this country, it is usually impracticable, and only the most exaggerated cases find their way thither. An oculist should be consulted in every instance, however, before an artificial eye is worn. Indeed, except in the larger cities, it is usually through his instrumentality that they are obtained. It has been estimated that about 70,000 persons in the United States wear artificial eyes.

A NEW METHOD

Of Diagnosing Certain Corneal Affections.

FRANK TRESTER SMITH, M. D., CHATTANOOGA, TENN.*

The drugs which I show you are *Fluorescein* and *Fluorescin*. They are products of the distillation of coal tar, and closely related chemically. They are akin to *Resorcin*. *Fluorescein* is most commonly used and is preferred by most writers, but I have not observed that it is superior in any respect to *Fluorescin*.

They are almost insoluble in water, but the addition of *sodium bicarbonate* increases the solubility. This solution is chemically incompatible with *cocaine hydrochlorate* as the *hydrochloric acid* in the latter acts on the *bicarbonate*, setting free *carbonic acid gas*.

The formula for making the solution is as follows:

R; Fluorescein (or fluorescin), gr. v; sodii bicarb., gr. ijss; aquæ, ℥ss.—M. et ft. sol.

This solution when applied to the eye, healthy or inflamed, produces no result, provided there is no abrasion of the corneal epithelium. If this latter condition exists there is a greenish

*Read before Alabama State Medical Association, Huntsville, April 16, 1891.

discoloration of the abraded surface which you will observe in this rabbit, where I have made a scratch of the cornea. Abrasions of the cornea are produced by ulcers or by traumatism, and this furnishes us with the indications for this drug. For while the diagnosis is very easy in these cases, for an expert, it is not so for the general practitioner who uses but few of them. Especially in locating small foreign bodies is this method useful. The discoloration will locate it at once, and assist you materially in its extraction.

The solution is painless and can be used with impunity even in inflamed eyes. It is also absolutely non-irritating. I have used it where the mildest astringent could not be borne, with no complaint from the patient and no increased redness of the eyeball. The discoloration remains several hours, and is gradually diffused through the corneal tissue and absorbed.

The Memphis Journal of the Medical Sciences.

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Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this.

Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

WM. KRAUSS, M.D., Business Manager.

Memphis, Tenn.

DR. W. B. ROGERS has resigned the presidency of the Board of Health. He made a most excellent officer. Unfortunately the powers of the Board are too limited for more effective work.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS. — The meetings of the Congress of American Physicians and Surgeons will be held in Washington from 3 to 6 p.m., September 22, 23, 24 and 25, 1891. William Pepper, Chairman of the Executive Committee.

TO THE MEDICAL STUDENT.—As summer's advent brings frequent reference to the *sweet girl graduate* in the newspaper press of the country, so it is meet that the medical press, as springtime approaches, should pay its respects to the *medical student*, as he blossoms into the physician. For his benefit we reproduce

THE ANATOMIST TO HIS LOVE.

I.

I list as thy heart and ascending aorta
 Their volumes of valvular harmony pour ;
 And my heart from that muscular music has caught a
 New love 'mid its anatomical lore.

II.

How sweet is the sound as thy ventricle throbs
 In systolic symphony measured and slow,
 While thy auricle answers in rhythmical sobs,
 A melody wondrously low.

III.

Thy cornea, love, has the radiant light
 Of the beam that dances in the icicle's sheen ;
 And thy crystalline lens, like a diamond bright,
 Behind the quivering frame of thine iris is seen.

IV.

Thy retina, dear, with its luster of pearl,
 Like the far-away nebula, distantly gleams
 In front of black cellular tissue which hurl
 From each hexagon angle the silvery beams.

V.

How sweet is thy voice as it sighingly swells
 From thy daintily quivering chordæ vocales,
 And answers in the echoing cells—
 The antrum, the ethmoid, the sinus frontalis.

VI.

The flash of those orbs is enslaving me still,
 As they roll 'neath the palpebræ dimly translucent,
 Mysteriously obeying the magic will
 Of the oculo-motor, patheticus, abducens. —*Exchange.*

DR. S. W. SANFORD has removed to Union City, Tenn. The *Journal* wishes him much success in his new field.

J. B. LIPPINCOTT COMPANY will, beginning with April, issue quarterly thereafter a work entitled "International Clinics." This work will comprise the best and most practical clinical lectures on medicine, surgery, gynecology, pediatrics, dermatology, laryngology, ophthalmology and otology, delivered in the leading medical colleges of this country, Great Britain and Canada. These lectures have been reported by competent medical stenographers, and thoroughly revised by the professors and lecturers themselves. The object of the work is to furnish the busy practitioner and medical student with the best and most practical clinical instruction, in concise form. Each volume will consist of over 350 octavo pages, illustrated with photographic reproductions of important cases.

WM. KRAUSS, M.D., chairman of the committee on Malarial Hematuria, of the Tri-State Medical Society of Arkansas, Mississippi and Tennessee, has sent out the following circular to the profession :

DEAR DOCTOR :—As chairman of this committee, I appeal to you to assist us to the best of your ability in carrying out our investigations. We hope you will appreciate the necessity of original research in the field, as well as the difficulties encountered in the collection of data and statistics. The object of this committee is to establish the following :

1. What relation to other malarias does hematuria bear?
2. In what geological location does it mostly occur?
3. In what season is it most abundant?
4. Does drinking water have any influence?
5. Term of residence of patient in neighborhood.
6. Condition of patient's health before attack.
7. Do patients suffer from other types of malaria before attack?
8. On what type of malaria does hematuria usually supervene?
9. Present rate of mortality.
10. Symptomatology.
11. Effect of quinine, and general therapeutics.
12. Form of hematozoon most constantly found in this type.
13. Condition of blood during attack.
14. Post mortem appearance.

(The last three to be determined by writer from specimens obtained according to directions furnished correspondents,

unless correspondents have the means and inclination to do so. (If possible, the writer would prefer to do the post mortems.)

Only statements of facts for compilation are desired. The deductions are then to be made by the committee, from the whole matter collected.

Blanks for clinical observations, with instructions for obtaining and preserving specimens, are printed at writer's expense, and can only be sent to applicants, *i. e.*, those who are willing to furnish data and specimens. Correct data of cases treated in the past are also desirable.

All communications of this kind should be made on the committee's blanks. The work is then distributed to members of the committee by the chairman. It is to be urged to make application at once (by postal card), as there is but little time to work in. Due credit will be given those furnishing material and data.

The committee is composed of Drs. Wm. Krauss, Jno. Gaines, D. A. Linthicum, F. A. Bizzell and H. C. Dunnivant. The *Journal* predicts an interesting report.

DR. S. A. ROGERS succeeds his brother to the presidency of the Board of Health. He has already instituted a vigorous house-to-house inspection in anticipation of the hot season. The doctor is an earnest student of hygiene, and intends to make a success of his administration.

READING NOTICES.

"ROBINSON'S LIME JUICE AND PEPSIN" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See adv. this issue.)

* * *

MARCHAND'S PEROXIDE OF HYDROGEN is by far the most active preparation of the kind in use. Each bottle is provided with a flexible rubber stopper, so that it can be hermetically sealed after use. Peroxide of hydrogen is the only agent that will thoroughly cleanse abscesses.

* * *

In this day of original research every physician should have his own microscope. The "Diagnostician" of Aloe & Co., St. Louis, meets all the requirements for home investigation. With it tubercle bacilli can be easily recognized.

BLUE RIDGE SPRINGS DYSPEPSIA WATER is a seasonable remedy now. It has been found very efficacious in spring fevers, hepatic and renal disorder, etc. It possesses the advantage of palatability.

* * *

The Tennessee Wire & Iron Co.'s Perfect Comfort Hammock Chair is the cheapest summer luxury obtainable. It can be used as a rocker or hammock, and adjusts itself to any angle.

* * *

C. A. Bruegmann, M.D., Hartwell, Neb., writes: Having received your kind letter, pamphlets and samples in due time, I gave, in a severe case, relapse of influenza, 6 Febricide Pills, one to be taken every four hours. At my next visit, after the patient had taken five pills, I found him at his supper table enjoying a hearty meal. Being restless at night from overwork, I take one pill of Febricide before retiring, and I sleep comfortably all the rest of the night. I am convinced it is a sure safeguard for every physician to have his case supplied with those pills.

* * *

Dr. Umpfenbach, in the Provincial Lunatic Asylum, under the direction of Dr. Noetel: "Chloralamid was given in 55 cases, 23 of which were men and the remainder women. It is interesting to learn that in the greater number of cases the results were everything that could be desired, although the symptoms in some of the cases were very severe. Considerable importance must be attached to the observation that the remedy was well borne in every instance, even when taken for months together; valuable evidence of this was offered by the body-weight, which never decreased during the treatment. Further, no action on the heart or on the vascular or urogenital systems could be detected, nor did symptoms of collapse manifest themselves. In a single case chloralamid was observed to be excitant in action, but this only serves to emphasize its advantage over chloral hydrate, which has such an action much more frequently. The author concludes that chloralamid must be regarded as a decidedly useful hypnotic."

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DR. HAYDEN'S VIBURNUM COMPOUND.—J. R. Briggs, M.D., in the *Texas Health Journal*, says: Over 5000 physicians have testified to the efficacy of this marvellous therapeutic Com-

pound. After being prescribed by the medical profession for a quarter of a century, its popularity is greater than ever. Young physicians not familiar with Hayden's Viburnum Compound should lose no time in informing themselves on its great merit.

* * *

There is a firm in the East which professes to deal in a "Genuine" Hoff's Malt Extract, that has addressed us several communications offering the munificent price of five and ten dollars to publish articles laudatory of their so-called "genuine" product. We are sorry to see that many Eastern medical journals have accepted the articles in question, presumably at the same price. We are not so much in need of copy that we are obliged to sell our convictions for a paltry five or ten dollars, and besides, we know of only one "Genuine Hoff's Malt Extract," and that is imported direct from Germany by the well-known firm of Tarrant & Co., of New York, and we would advise our readers, when ordering Hoff's Malt Extract to distinctly state "Tarrant's," else they are liable to get an inferior article.—*California Homœopath*, April, 1891.

* * *

CHOREA.—Dr. Charles L. Dana, of New York, contributes an article to *Brain* on the pathology of chorea. In conclusion he says: "In fine, we have in chorea, first a vaso-motor paralysis and trophic disturbance affecting certain areas of the brain, and to a less extent of the cord. Then we have this becoming chronic, with connective tissue hyperplasia, and degenerating changes in ganglionic cells and fibres." The flattering results attained by several physicians and reported to us, of the administration of "Elixir Three Chlorides," in chorea, would seem to add confirmation to the conclusions of Dr. Dana. As a means to promote the absorption and check the abnormal growth of connective tissue, mercury is recognized as one of our most reliable agents; while arsenic and iron are now, as heretofore, our principal reliance in this oft-times persistent and annoying affection.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., JUNE, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

Pathogenesis of the Amœbæ of Dysentery.

Kartulis of Alexandria complains that specialists in parasites have ignored the importance of the amœba in dysentery, notwithstanding the fact that his researches have been confirmed by observations in Russia, Bohemia, Greece and America. He maintains that the amœbæ occur not only in all true cases of dysentery, but also always in dysenteric liver abscesses. He has repeatedly sought for the amœbæ in hundreds of cases of other intestinal affections, but has never found them.

After a number of experiments Kartulis found that the best medium for the cultivation of the amœbæ was prepared by boiling for fifteen minutes twenty or thirty grammes of fresh straw in two liters of water. The fluid is then filtered and sterilized. Large-sized test tubes, holding 50–100 c.cm., may be used, and are filled with the fluid. A few drops of the slimy masses in a fresh dysenteric stool are then mixed with the fluid in the tubes, which should be kept in an incubator at a temperature of 86° or 100° F. After the lapse of twenty-four or forty-eight hours there forms on the surface of the tube a film like a spider's web, which consists of freshly developed amœbæ, in addition to many bacteria. The amœbæ grow best when the vessels are left exposed to the air. The amœbæ

of the cultures are much smaller than those of the stools, have a lively movement in wandering spore form, but throw out no pseudo-pods. Ciliæ are absent, but nucleus and vacuoles are very distinct, especially when the bodies are stained with aniline colors. Here and there are seen some amœbæ, which are like in form and size those used for inoculating the tube. Very often, also, there are seen small forms, round, homogeneous, and glistening, which have a rapid and dancing motion. These take the aniline colors intensely, and Kartulis regards them as free nuclei.

The spores gradually develop to large amœbæ. The amœbæ then execute movements by throwing out pseudo-pods. Toward the fourth and fifth days there are seen between the lively amœbæ, forms which are much smaller, about the size of a white blood-corpuscle. They are round, quiet bodies with a fine contour, small nucleus, and fine protoplasm. The forms become smaller gradually, form two contours, which appear yellowish, with dark protoplasm. Their sizes vary between 5 and 7 m. As amœbæ develop from these forms, there is no doubt that they are spores. Within eight or eleven days the spores increase; the amœbæ are very sparingly present.

In order to develop the spores further it was found necessary to add neutral or slightly alkaline bouillon to the fluid in the culture vessel. Kartulis has seen old spores, kept at the temperature of the room for four months, develop in this medium. He has never been able to develop amœbæ from the stools of non-dysenteric patients. His efforts to obtain pure spores were unsuccessful. Only once did he succeed in carrying the amœbæ through three cultivations free from other micro-organisms.

Efforts to inoculate rabbits and guinea-pigs, either with fresh dysenteric stools or with cultures by the amœbæ, were negative. Dogs and cats have been successfully inoculated by the bowel. Kartulis gives in detail his experiments upon cats. He concludes from his experiments that the amœbæ of dysentery are the sole causes of dysentery.

As control experiments he cultivated other bacteria found in dysenteric stools, among them the bacterium coli and the

bacillus of the so-called green diarrhea, and injected into the bowels of young cats.

He also cultivated upon gelatin plates several micro-organisms from dysenteric stools, and after he had convinced himself that there were no longer any amœbæ alive, he injected the cultivations *en masse* into the bowel of young cats.

He filtered dysenteric stools through flannel, which retains the amœbæ, and injected the filtrate into the rectum of cats.

A pure culture of the bacillus of Chantemesse and Vidal, obtained from their laboratory, was also injected into the bowels of young cats.

Finally, cats were fed on the organisms mentioned. All these experiments had a negative result. Not one of the animals was taken sick with dysentery, and only in one instance was there a slight transient diarrhea.

It yet remains for some one to find the amœbæ outside the body. Kartulis thinks it is probably to be found in water. *Centralblatt für Bacteriologie und Parasitenkunde.*

Etiology of Diphtheria.

In extended studies at the laboratories of Johns Hopkins Hospital the authors have found that the organism known as the *Klebs-Löffler bacillus* is present in every case of primary diphtheria, and that it may properly be designated the *bacillus diphtheriæ*. The observers find that the organism is present in such number and situation as to explain the local manifestations of the disease; that it can be readily isolated in pure culture; and that a disease identical in all respects with human diphtheria can be produced experimentally by the inoculation of pure culture. The investigation of the toxic albumins, produced by this remarkable bacillus, has cleared up many obscure points. The only points which can be brought forward as tending to cast any doubt upon the recognition of this bacillus as the specific cause of diphtheria, are the very exceptional observations of an apparently identical bacillus in the throat of healthy children, and the more frequent observation of a bacillus, usually called the pseudo-diphtheritic bacillus, which differs from the true bacillus diphtheriæ chiefly or only by the absence of pathogenic properties when inoculated into animals.

The finding in healthy individuals of a bacillus apparently identical with the bacillus diphtheriæ is such a rare occurrence that Löffler, who made the first observation of this nature, has not been able to repeat it during several years of search. When found it has been present in such small numbers as to present a marked contrast to the results in cases of diphtheria. The exceptional occurrence in healthy persons of the bacillus diphtheriæ in such small numbers as to indicate that it does not find suitable conditions for its multiplication and injurious action upon the tissues, seems to the observers in no way opposed to the acceptance of their bacillus as the specific cause of diphtheria. Experiments upon susceptible animals showed that to produce in them a pseudo-membranous inflammation of a mucous membrane by inoculation with the diphtheritic bacillus, it did not suffice simply to apply the bacilli to the surface of the mucous membrane, but that an actual injury must be done to the membrane. While it is by no means proven that an injury to, or a morbid condition of, the mucous membrane is necessary for the infection of human beings with the diphtheritic virus, nevertheless such conditions are recognized as important predisposing causes, and clinical observations point to differences in susceptibility to infection with this virus, so that there is no reason why in some healthy persons the bacillus diphtheriæ might not be present in the mouth without doing any damage. The status of the so-called pseudo-diphtheritic bacillus cannot be considered as settled. The observers believe that we are now in possession of a positive means of diagnosis, and while it may be questioned whether practitioners of medicine in general are likely to be in a position to make use of this means, the method is not difficult and may be easily applied. The endless controversy as to whether diphtheria is primarily a local or a general disease is settled in favor of the doctrine that it is primarily local, and that the grave constitutional symptoms are the result of intoxication with poisonous products, formed by the local action of the bacilli. Intelligent measures of prophylaxis can be based upon a definite knowledge of the character of the specific germ and its behavior in the economy; such measures have already been formulated.—Wm. H. Welch and A. C. Abbott in *Bulletin of Johns Hopkins Hospital*.

Therapeutical Application of Peroxide of Hydrogen.

It is now twenty-nine years ago since the author read his last paper on this subject. In one form or another this product has come into use, though not perhaps to the extent that the author's sanguine utterances would have led one to suppose. One ingenious person has turned to account his observation that the solution of the peroxide turned feathers yellow, to manufacture a now popular hair dye which is sure to command a ready sale so long as yellow hair is the fashion. Another chemist, struck presumably by the valuable and active oxidizing properties of the solution, has converted it into one of the most popular of disinfectants, viz., sanitis, so that Dr. Richardson's remarks have not altogether fallen by the wayside. Peroxide of hydrogen can now be prepared in fairly stable solution in strengths varying from ten to thirty volumes per cent., and the author has shown it to possess really remarkable therapeutical properties both internally and as a local application. In diabetes it exercises a controlling influence over the excretion of sugar, and in combination with codeia it has a most beneficial effect without any corresponding disadvantage. Muscular spasm is subdued by, and pertussis yields to, its calmative influence. In respiratory affections generally it appears to afford considerable relief, not only by facilitating the re-oxygenization of the imperfectly aerated blood, but also in cases of bronchiectasis and fetid accumulations in the lungs, by destroying their septic qualities. The influence which the solution has been found to exercise over purulent secretions, whether offensive or not, is something very distinct from that which is experienced with other disinfectants. As can be seen under the microscope, it absolutely destroys the pus corpuscles, breaking them up and depriving them of all noxious proclivities. As a natural consequence of the possession of such remarkable powers, injections into abscess cavities of the 5 to 10 per cent. solutions bring about a speedy cure in cases of long-standing sinuses with free suppuration in which there is no mechanical reason for the continuation of the suppuration. Last, but not least, if given in large and repeated doses it excites ptyalism; and has, in Dr. Richardson's hands, proved a reliable

and efficient substitute for mercury and iodide of potassium in every stage of syphilis. Given along with mercury it enhances its action, and smaller doses can therefore be employed. Space is wanting to describe the manifold directions in which Dr. Richardson has found this drug of service.—*B. W. Richardson in Med. Press.*

An Overdose of Strychnia Treated by Bromide of Potassium.

On October 25th, at 9:10 A.M., I received a message that a patient had taken "a little more than a tablespoonful, instead of a teaspoonful, of his medicine." The day before I had sent him two ounces of Easton's syrup, labeled "a teaspoonful to be taken in water three times a day." At 9:50 I found the patient (a muscular man, twenty-nine years of age), in bed in a darkened room. He lay on his back, with the bed clothes pushed up over his eyes. His arms were flexed across his chest, and rigid; his legs were extended, abducted, and rotated outward. His face was distorted; the angles of the mouth were drawn down, exhibiting the risus sardonicus. On attempting to speak, his articulation was indistinct. The eyes were open, but the darkness prevented observation of the pupils. Respiration was suspended, save for an incomplete inspiration. The skin felt very warm, and was bathed in profuse sweat. The pulse was small, soft, and too rapid to admit of counting.

On relaxation the patient spoke distinctly, and complained of such little light as entered through the drawn blinds. He begged me not to touch him. After two minutes another paroxysm set in. Finding that he had taken more than one ounce of the syrup at about 8:30—symptoms developing about twenty minutes afterward, and increasing in violence until my arrival—I decided to give half an ounce of bromide of potassium. On offering this, dissolved in two ounces of water, the patient cried out that he should bite the glass tumbler. A strong convulsion ensued. At 10 A.M., as soon as it was possible, he opened his mouth and I poured in one ounce of the solution. This was swallowed with great and convulsive effort, accompanied by rigidity of the limbs. The remainder was swallowed in like manner. During the next fifteen min-

utes he yawned several times and shuddered, closing his mouth with a decided snap. At 10:20 A.M. the skin was perceptibly cooler; the pulse stronger, and 70. There was complete relaxation, much sweating and salivation. The saliva saturated two handkerchiefs. At noon he got up and sat in a darkened room. At 1 P.M. he had lunch. There was no difficulty in swallowing, but he felt twitchings at the corners of his mouth and brought his teeth together with exaggerated force. Besides this, no other symptom occurred. The large amount of the bromide and the concentrated form in which the salt was administered caused nausea and a feeling of "burning" at the epigastrium. The patient sat up, read and conversed until 9 P.M., and said that "he felt quite himself." The sedative caused no drowsiness. On measuring the remaining syrup I found he had taken ten drams in one dose, equal to $\frac{6}{16}$ grain of phosphate of strychnia. The tablespoon used held exactly one fluid ounce.

This case suggests the unadvisability of dispensing Easton's syrup and similar potent medicines in undiluted form, and also the danger arising from the use of domestic measures of such uncertain and varying capacity as the spoon mentioned. *W. B. Caley, L.S.A., London Lancet.*

Iodine Injections in Tuberculosis.

Drs. Heneage Gibbes, of Michigan, and E. L. Shirley, of Detroit, who hold to the old doctrine that pulmonary phthisis is distinct from tuberculosis, or rather that many cases of phthisis are non-tubercular (*Amer. Jour. Med. Science*, 1890), have been making experiments upon the best means for depriving phthisical sputa of their infectivity (*Med. News*, Dec. 27th). Chlorine was an agent which, mixed with sputum, rendered it harmless when inoculated in the guinea-pig; but its therapeutic use was out of the question. They then found that iodine and iodide of potassium in solution with glycerine and water could, when injected into guinea-pigs, protect them from inoculation; and that the same property was possessed by the chloride of gold and sodium. They have applied this treatment to the human subject, using $\frac{1}{12}$ gr. of iodine with $\frac{1}{50}$ gr. to $\frac{1}{20}$ gr. of the gold and the sodium salt as a hypodermic

injection; or commencing with the iodine alone (slightly increasing the dose) and substituting for it the gold and sodium salt if not well borne. About twenty-five cases of phthisis have been so treated, the results being such as to encourage their further use of the plan; but we prefer to await fuller details before judging the value of the treatment.—*London Lancet.*

Strychnine in Snake-Bite.

A controversy is raging in Australia on this subject. The treatment of snake-bite by the hypodermic injection of strychnia was introduced by Dr. Mueller, and evidence of its success has been adduced by other medical men who have tried the plan. Dr. T. L. Bancroft has found, by experiments on guinea-pigs, that the method is useless. Recovery from snake-bite, it is well known, does not imply cure, and it is not easy in particular cases to distinguish the one from the other.—*Journal of the American Medical Association.*

The Danger of Administering Chloroform in the Presence of an Open Flame.

Phosgene, a gas exceedingly irritating to the respiratory tract, is produced by the decomposition of chloroform in the presence of an open flame. While no cases are recorded in which death could be directly traceable to this source, the question suggests itself whether it may not have been the exciting cause of fatal broncho-pneumonia in some cases after operation. The gas does not develop in the presence of the incandescent light.—*Med. Record.*

Dr. D. S. Moore, Assistant Superintendent at the North Dakota Hospital for the Insane, Jamestown, N. D., writes: "I have used Chloralamid and found it, in cases of insomnia from habit, restlessness, anxiety and nervous exhaustion, considering the ease with which it is administered and its freedom from disagreeable after effects, the most efficient hypnotic that has come to my notice."

DEPARTMENT OF
GENERAL SURGERY.CONDUCTED BY
W. B. ROGERS, M. D.

Treatment of Chronic Cystitis.

The treatment of chronic cystitis is to be begun by finding out, if possible, what cause underlies the disease. This done, the cause must be removed, if practicable; or, where the cause has ceased to be operative, the effects of that cause must be combated. Ten years since, the writer treated a case of chronic cystitis in a man ninety years of age (in whom catheterization could not be accomplished, and in whom retention of urine took place), by aspiration of the bladder on seventeen consecutive days. The disease was here secondary to an enlarged prostate, and superinduced by attempted catheterization. At the expiration of the time indicated, the retention was entirely relieved; a catheter passed readily into the bladder, the viscus was repeatedly washed out, and the old man kept comfortable, as far as his urinary organs were concerned, until the day of his death, several weeks later.

Eighteen years ago, an old man in a neighboring section, who had suffered with enlarged prostate and chronic cystitis, became suddenly the victim of retention. All attempts at catheterization failed, and a consultation of physicians resulted in the plunging of a large trocar and canula into the bladder above the *pubis*. The urine was evacuated, the canula retained *in situ*, with occasional removings for purposes of cleansing, for several years. The cystitis disappeared, the enlarged prostate shrank, so that, for a year or more before his death, the urine was voided freely through the urethra, and absolute comfort was secured. These cases were a surprise to the physicians concerned, and were not fully credited by other medical men who were informed of the results.

Six months ago, after careful study of the reported cases of epi-cystotomy, done for the relief of chronic cystitis by Dr. Hunter McGuire of Richmond, Va., the writer opened the bladder of an old man suffering from chronic cystitis, result-

ing from enlarged prostate of several years' standing. The walls of the organ were much thickened posteriorly, the muscular coat evidently contributing chiefly to the altered condition. The after-management of the case was that recommended by the reporter above mentioned, and the recovery was uninterrupted and complete. The new urethra formed, however, had closed in two months from the date of operation, but there has been no return of any of the symptoms of cystitis, and the old man has today as perfect control of his bladder and urethra as he had forty years ago.

To go back, however, cases of chronic cystitis should be radically treated before the ureters and kidneys have become involved in the chronicity of the disease. Treat a dirty, irritated bladder, with thickened walls, on the same principles that the modern surgeon treats wounds or diseased joints. It is upon these principles that the distinguished operator, already referred to, has given to the world an operation so simple, so safe and easy of execution, that old men—or young ones either, for that matter—need no longer die nor fill out an existence worse than death, in consequence of bitterly-regretted indiscretion, or of alterations in their genito-urinary apparatus entirely beyond their control.

On the same principles strictures are cut, perineal sections done, bladders washed out. Median and lateral lithotomy cured the cystitis caused by stone in the bladder on the broad principles on which Hunter McGuire cures enlarged prostate and its accompanying cystitis, by the formation of an artificial suprapubic urethra. In cases of prostatic enlargement the suprapubic urethra is far preferable to the formation of a perineal fistula, be the opening ever so large or so patulous; and the reasons are obvious.

What are the principles? Remove the cause, as stated, if it is still operative, as, for instance, if a concretion exist. Nor, in cases of stone, can any one method be applied to all cases; and while it is hardly probable that any one surgeon of today would assert that the suprapubic incision is adapted to all cases, it is a plan well worth consideration in every case that presents itself. Dr. McGuire's uniformly successful results in every case when chance was offered, and recoveries in several

seemingly beyond hope at the time of operation, teach that, in skillful hands at least, the procedure is safe. If it fail, the fault is that of the operator.

The removal of a stone and the observance of ordinary precautions generally cure the accompanying cystitis, nature herself conforming to her own unalterable laws.

Cleanliness, drainage and rest are the watchwords of success. One operation gives ample scope for the practice of all indications, no matter what condition prevails.

Open the bladder by an incision above the pubis, as Dr. McGuire so plainly directs in the *Virginia Medical Monthly* for October, 1888, and the field of operation is clearly before the eye. If a calculus is found, remove it, cleanse the bladder thoroughly and repeatedly, and the writer has found that the cystitis will get well.

If a cystitis accompanying hypertrophy of the prostate is discovered, one has nothing to do but to keep the wound clean and the urine acid, and the cystitis will get well and the gland muscle shrink to its natural size. The use of internal medication and catheterization here is worse than useless, as the irritation of instrumentation aggravates the disease.

If tumors or tuberculous nodules are found, scrape them away as far as possible, and touch bleeding points with the galvano-cautery; or if malignancy prevail, the ureters sound, and one has the desire to leave a name behind him, he might extirpate the entire viscus, and stitch the ureters in the lips of the abdominal wound. The patient might not recover, but the cystitis would have been removed.

If the cystitis be the result of microbial infection, or the condition of the viscus be as described in discussing the pathology of this form of the affection, washing out the bladder with some cleansing fluid should be frequently practiced. Solutions of boric acid or Thiersch's solution are probably the most efficient.

A drainage tube should certainly be employed in these cases, and, at the same time, the bladder may be flushed out through the urethra, the escape for the fluid used being through the abdominal orifice.

The rest secured to the muscle fibers of the prostate gland,

as well as to those of the bladder itself, induces rapid return to a condition near the normal, particularly when the disease has been of long continuance and degenerative changes have set up.

Keep the fistulous tract open with a silver or hard-rubber canula, as Dr. McGuire advises, or line it with skin from the oelly, as has been successfully done by Dr. Robert T. Morris of New York, as a modification of Dr. McGuire's operation; and the experience of these distinguished surgeons, and that of others of less wisdom and even no reputation, teach that chronic cystitis of almost every degree, and from nearly all causes, will result in perfect recovery.—*H. T. Nelson, M.D., of Virginia, in Virginia Medical Monthly.*

The Treatment of Gonorrheal Epididymitis.

We believe that much can be done to prevent the appearance of this serious complication. The avoidance of all causes which tend to exacerbate the posterior urethritis, particularly irritating injections, instrumentation, excesses of any kind, or a full rectum or bladder, is universally advised. The wearing of a suspensory bandage is also warmly commended.

Probably the most effective preventive is the continued use of antiseptics by the mouth. Of these various combinations, the most satisfactory in its results is that suggested by White. Four to six capsules are given daily, each containing five to ten grains of salol, together with copaiba, cubebs and pepsin.

As the epididymis is only reached from the urethra by means of the vas deferens and cord, the inflammation must necessarily pass along these structures, and may be expected to exhibit characteristic symptoms before it has reached the testicle. As a matter of fact such symptoms are nearly always present. The dragging pain in the inguinal region of the affected side, together with tenderness and increased resistance along the cord, shows in what direction the inflammation is traveling. Prompt treatment may save the epididymis, the case not proceeding further than a funiculitis. One such case we have observed, and a number of similar ones have been reported. In the case we treated the epididymitis was aborted

by immediately placing the patient in bed, applying active counter-irritation to the skin of the inguinal region, and elevating the testicle.

When the disease is fully developed, we believe that a proper selection from the innumerable methods of local and general treatment advised can be readily made. Locally, the application of a modification of the Langlebert-Horand suspensory bandage, supplemented in severe cases by incision into either the tunica vaginalis, or the distended cellular tissue back of the epididymis and above it, will almost immediately subdue pain and secure a rapid resolution of the symptoms of acute inflammation. A continuance of the same dressing, with the application of mercury and belladonna ointments, will produce prompt disappearance of fibrous nodules. Constitutionally, the administration of any bland fever mixture in the acute stage, followed by small doses of iodide of potassium till induration disappears, is all that is required. Of course, the bowels must be kept soluble, and the urine should not be allowed to become strongly acid.

Medicines, such as pulsatilla, which have been vaunted as specifics, have, on extended trial, been found to be utterly useless. The good effects attributed to this drug are probably due to the fact that epididymitis of itself not infrequently runs a mild course.

The Langlebert-Horand bandage applies to the relief of inflammation the most potent remedies of the surgeon's armamentarium—namely, heat, moisture, rest and pressure. The scrotum is first enveloped in cotton, over this is placed a sheet of rubber dam; finally a stout suspensory bandage is applied. The bag of this bandage is shallow, and at the sides are gores which are provided with eyelets and laces. By lacing at the sides the bandage may be made, not only to press the affected organ upward against the body, but also to exert lateral pressure, so that the testicle is everywhere evenly and uniformly supported.

Horand treated 200 cases by this dressing. In one on account of marked involvement of the cord, the bandage was painful. In two others epididymitis of the other side developed. In the others there was practically complete relief from suffering

in from thirty to sixty minutes. The patients were enabled to attend to their ordinary vocations, and resolution followed in a remarkably short time. These results of Horand are abundantly confirmed by other observers.

We have had made a modification of the Langlebert-Horand bandage, with which we have obtained results as gratifying as those reported by French observers. The body of the suspensory is made of mackintosh, lined with stout cloth; this supplies the place of the rubber dam, and is more readily adjusted. Cotton wool or ordinary cotton batting is better than absorbent cotton, since the free sweating occasioned by the close application of the rubber has a tendency to produce wadding. By means of this dressing we have promptly relieved the suffering in all the cases in which we applied it, the patients have been able to continue on their feet, and the disease has run a rapid and benign course. When the inflammation is acute, the swelling marked, the pain intense, puncture of the vaginal tunic or of the inflamed cellular tissue is indicated. These punctures should not be carried into the tunic albuginea.

It is true Vidal reports 400 cases, and Smith 1000 cases, where puncture of the albuginea resulted in no harm to the patient and greatly ameliorated his suffering. There is no proof that either of these surgeons punctured more deeply than the vaginal tunic; nor is there any reason why they should do so, since an incision carried thus far as effectually relieves pain as one carried into the substance of the gland. Castelnau, Demarquay, Salleron and others report cases of total extrusion of the testicle after puncture of the albuginea. The practice is, however, at the present day, universally condemned, the majority of textbooks merely mentioning it as a procedure to be avoided.

In puncture of the tunica vaginalis the knife can be entered to the depth of a quarter to a half an inch, the seat of puncture being selected in accordance with the position of the testicle and the presence of fluctuation. Such punctures should always be made under full antiseptic precautions. When pus forms, free incisions are, of course, indicated.

We believe the treatment outlined above is all that will be required for the cure of even the most active forms of inflammation of the epididymis.

CONCLUSIONS.

1. Gonorrheal epididymitis occurs most frequently in those who have received no treatment for the original urethritis. Its outbreak is frequently determined by violent or long-continued physical exertion, or by venereal excess.

2. The resultant induration of a gonorrheal epididymitis does not cause obliteration of the convoluted duct in the majority of cases. Statistics on this point are misleading, from the fact that it is practically only the few sterile patients who are subsequently observed by surgeons, and hence these form the greater number of the reported tabulations.

Of four cases of double epididymitis observed by us, not under treatment for sterility, there was an abundant discharge of spermatozoa in three.

3. Unilateral epididymitis may, in exceptional cases, cause permanent sterility. During the acute attack very few spermatozoa are found in the semen.

4. Obliteration of the duct does not cause atrophy of the testicle.

5. Pain, tenderness and swelling in the groin, dependent on funiculitis, practically always precede gonorrheal epididymitis. Prompt treatment at this stage may abort the inflammation of the epididymis.

6. The development of gonorrheal epididymitis is, in a great measure, avoided by the use of antiseptics by the mouth, and the application of a suspensory bandage to the scrotum.

7. The pain and disability usually attendant on gonorrheal epididymitis are promptly allayed by puncture, or aspiration of the serous exudate contained in the tunica vaginalis and the cellular tissue placed behind and above the epididymis, followed by the application to the scrotum of a thick layer of cotton, over which is placed a mackintosh suspensory, so made that it presses the inflamed organ upward against the pubes, and, by means of lacings at the side, can be so drawn in that uniform lateral support is secured. Punctures are necessary only in the most acute cases.

8. The subsequent induration after the acute stage is most quickly resolved by a continuance of the dressing above described, together with the local application of belladonna and mercury ointment, and the internal administration of iodide of potassium.—*Drs. Martin and Wood, University Magazine.*

CULLINGS.

TR. BY WM. KRAUSS, M. D., MEMPHIS, TENN.

TREATMENT OF INOPERABLE MALIGNANT NEOPLASMS. — Prof. V. Mosetig-Morchhof, Vienna.

Author has been engaged in experiments looking to the solution of the question: "what shall we do with inoperable malignant growths?" In 1883, after numerous disappointments and failures, he succeeded in curing a case of sarcoma of the inguinal glands by parenchymatous injection of solution of trichlorate of anilin. The principle was based on the following hypothesis: "in microscopic preparations the cell nuclei exhibit a great affinity for staining reagents, holding them in combination for a certain length of time; hence, if we were to stain the neoplasm in corpora vivo, the nuclei of normal cells would, perhaps, be only transiently affected, whilst the less resisting nuclei of neoplastic cells would possibly receive an influence which might arrest development or even lead to necrobiosis."

After very few trials of the trichloride of anilin it was found to exhibit such untoward and even dangerous symptoms that the method had to be abandoned. The introduction of an innocuous anilin stain into practice (methyl violet—pyoktanin—Stilling) has induced author to renew his experiments on inoperable malignant tumors. The results enumerated in his paper are certainly remarkable.

Case I. Sarcoma of inferior maxilla. Woman, aged 66. Treatment several weeks. Diminished to one-third original size. Remarkable improvement of general condition.

Case II. Cysto-sarcoma in and below the region of left sterno-clavicular articulation. Twelve injections of 3 iss of a 1 : 300 solution of pyoktanin. Decided diminution of growth.

In another case, villous sarcoma of bladder accompanied by extreme disturbance of function, the subjective improvement was very decided.

The most interesting case was an operable, rapidly-growing, pelvic sarcoma with resultant occlusion of intestine requiring colotomy. After fourteen injections of 45 minims of 1 : 500 solution, visible diminution and almost complete amelioration

of symptoms due to compression. 3iss of 1:300 solution is now being borne without injury or discomfort. The injections are expected to gradually stain and destroy all portions of the neoplasm.—*Wiener Klin. Woch.*, 1891, No. 6.

PERITYPHLITIS.—Ridelot in *Bull. et mem. de la soc. de ch'r. de Paris T. xvi p. 625*.

Author is a warm advocate of early operation in acute perityphlitis. He calls attention to the greater difficulty of diagnosis in the female. A case of a virgin aged 18 serves as illustration. Had had violent pains in right side for eighteen months, at first only at menstrual period, but later they became constant. At times there was fever. Palpation on right side, even over uterine appendages, elicited extreme pain; on the left, little sensitiveness. Rectal examination showed a hard mass on the right border of uterus. Intestinal symptoms absent. On opening the abdomen, the right ovary was sound, the left contained a small cyst. The omentum, right tube and appendix were adherent. Tube sound, appendix, a cylindrical fluctuating tumor, not perforated. Resection of appendix, prompt relief of all symptoms. Appendix contained pus, no foreign body; its wall was thickened. Author concludes that in doubtful cases pain and tumor on right side is evidence of appendicitis rather than disease of appendages.

MASSAGE IN TREATMENT OF FRACTURE.—Thesis by O. Meyer, Leipzig.

Author reports on twenty-seven cases of fracture of radius (typical) occurring in Kolliker's out-clinic. Union resulted promptly in all cases without loss of any function, not even diminished suppuration. The arm is placed on ulnar splint and slight friction commenced on third day, gradually increased to full massage every second or third day. Meyer is of opinion that fractures on joints, especially patella, are more rapidly healed by this method than by any other.

The Treatment of Irritable Bladder.

The best internal medication is iod. potas. in from 10–30 gr. doses every few hours with large quantities of hot, soft water. This often in the incipient stage will effect a cure in a few days and will give relief in a few minutes. The decoction of

the *triticum repens*, which has been so highly praised by some, I have been much disappointed in, as it has appeared to me to do nothing more than act as a diuretic. Tincture of *bella-donna* in some cases is of benefit, but can not be relied upon. Keep the body warm; warm baths with shampooing is of great benefit. Some cases that in the early stages were particularly intractable have been cured by a few weeks' residence at Excelsor Springs, with a liberal use of those iron-manganese waters. Probably they change the nutritive processes that are always at fault, and at the same time wash out the bladder thoroughly by their diuretic action. Relapses are liable to occur, hence great care should be used both as to diet and hygiene, and the first symptoms of relapse promptly treated. *Halley, Kansas City Medical Record.*

Treatment of Recent Hernia by Aspiration.

In the *British Medical Journal*, February 7, 1891, Dr. John Hern says: On being called some years since to a case of recently strangulated hernia which I failed, under chloroform, to reduce by taxis, finding the tension in and distention of the protruded gut apparently the main obstacle to reduction, I emptied it by means of my hypodermic syringe, with the result that reduction was at once easily accomplished. I have since repeated the operation on thirty-two occasions, in twenty-eight of which reduction was readily accomplished, and in the remaining four, three were, subsequent to aspiration, subjected to the usual operation (with one death from gangrenous gut), and one steadfastly preferred death to further operation, and succumbed on the tenth day. In neither of the three cases of herniotomy could any traces be found of the previous aspiration, due, I think, to two causes, the small size of the needle used, and the arrangement of the muscular fibers in the wall of the gut.

The class of cases which have appeared to me most suitable for the operation are recent cases—thirty-six to forty-eight hours or less; where the patient or friends refuse to submit to herniotomy. The simple aspiration can be designated "doing a little something." The advantages claimed for this procedure are:

1. It avoids the delay almost inseparable from the herniotomy; for example, gaining consent of friends, procuring adequate assistance, etc.

2. It avoids rough and heroic attempts at reduction by taxis, by placing in the hands of the general practitioner a means of reduction easy of application, and requiring no extensive surgical skill for its performance, and, moreover, a proceeding, which, by reducing the tension of the protrusion, lessens the danger of the taxis subsequently employed.

3. It avoids the risks of pyemia and septicemia, inseparable from all operations in which skin is divided.

Let us consider in how far this operation is based on a consideration of the anatomical and pathological conditions present. We must remember that the internal abdominal ring, the inguinal canal, the external abdominal ring, the crural ring, the crural canal and the saphenous opening in the fascia lata of the thigh are all bounded chiefly, if not solely, by aponeurotic structures, which have become thickened and resistant, although the openings have all become dilated. The margins of these openings forced back and thickened offer a strong passive resistance, so that if the protrusion becomes distended in any way by feces or flatus, the neck or narrow portion is so wedged into these fascial openings or canals that it becomes compressed, and venous circulation impeded (both arteries and veins are, of course, compressed, but the thicker coats of, and the greater force of circulation in, the former render them less affected by the pressure), the proportion between the protrusion and the opening or canal through which it has descended becomes so altered that the hernia becomes irreducible. Now, seeing that (in recent cases, at any rate) it must be the distention of the protrusion which is the main obstacle to reduction, there having elapsed no time for the effusion of lymph or other inflammatory changes to occur, having failed to reduce by taxis, it appears to me to be a perfectly justifiable proceeding to at once empty the protrusion of whatever fluid or flatus it may contain, and having thus lessened its bulk, to reduce by taxis.—*Dixie Doctor.*

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Toenail.

presents a novel, simple, and at the same time a treatment for ingrown toenail: A 40 grain of iodine is applied warm to the portion

After a few seconds the upper portion is so soft that it can be scraped off with a glass; the next layer is then moistened with iodine and scraped off; this must be repeated until the portion is as thin as a sheet of paper. It is then with a pincette and lifted from the nail bed and severed from the other half. The operation takes more than half an hour's time, is painless, while the patient is delivered from his ailment enabled even for an hour.—*Pittsburg*

DEPARTMENT OF
E C O L O G Y .

CONDUCTED BY

W. C. ROFFORD, M. D.

Y OF THE MAMMARY GLANDS.

W. C. ROFFORD, M.D., MEMPHIS, TENN.

Interesting on account of its rarity, the rapidity of growth, and on account of the fact that in which the mammary organs have been the subject of investigations go, with the literature of the largest and most rapidly developed glands of the breasts on record.

A case was brought to me on the last of the year. The patient was but a few months past the age when she experienced her first menstruation. At the time she was suffering from la grippe and convalescing at this time and subsequently prior to puberty the breasts of this girl were normal, but in a short while the mother observed them unduly large, and ere long the enlarge-

ment amounted to a deformity. A physician was consulted, but none of his remedies were of avail in checking the wild, riotous growth which these organs had taken on.



ILLUSTRATION FROM PHOTO.

When placed under my charge, although the measurements in inches as taken by Dr. A. B. Holder of this city, were : circumference at base, right 23, left $24\frac{1}{2}$; circumference midway between base and nipple, right $27\frac{1}{2}$, left 31 ; circumference from front of base over nipple and back to starting point, right $32\frac{1}{2}$, left $35\frac{1}{2}$; from sternal to axillary side of base over nipple, right 27, left 29 ; from base above to base below over nipple, right $22\frac{1}{2}$, left 24 ; yet I shrank at sacrificing the breast of a girl just budding into womanhood, and when I thought that she would be chagrined at not being like other girls, and,

above all, be deprived of the highest boon of maternity should she ever become a mother, the revolt was complete, and they were told that although the authorities said there was nothing to be done in such cases except amputation, yet, we would not amputate these organs without a thorough trial of compression. So, with the assistance of the nurses and Dr. Holder, bandages were applied for two weeks—at the expiration of which time the breasts were quite as large as when we began. The operation was now determined upon. Lateral flaps were made, not wishing to risk anything on the cosmetic operations that have been devised. The bases were large, the organs were quite vascular, so it was impossible to avoid hemorrhage when the slightest cut was made into the organ. There was almost no cellular tissue and fat between the skin and gland. No doubt these had been absorbed on account of the pressure from the large and rapidly growing gland.

Realizing that there would be quite a quantity of blood lost should the use of the knife be continued, the instrument was laid aside, and the closely adherent skin was peeled off from the gland by the use of the handle of the knife and the fingers. In a similar manner the gland was removed from its attachment to the pectoral muscles. The sheath of the muscles was brought away with the gland.

There was one fact right here connected with the operation which surprised and impressed me: this was the absence of bleeding vessels at the base. Remembering the fact that the mammary glands have rather good-sized arteries from the internal mammary, from the intercostals, and from the thoracic branches of the axillary, in their normal condition; then taking into consideration the greatly increased blood supply incident to this large and rapid growth, we were prepared to ligate some formidable vessels at the base; but to our surprise there was no bleeding beyond a moderate oozing, and we were forced to the conclusion that these glands drew by far the greater part of their nutrition from the vessels entering through the skin.

In looking at the photograph the superficial veins can be plainly seen. Taking this fact into consideration, might it not be worthy of a trial early in the progress of a similar case

to dissect up the skin and then replace it in its former position, hoping to change the abnormal nutrition and cause a shrinkage of the organ by breaking up its blood supply, without which it could not so lustily thrive?

She experienced a somewhat tardy healing, partly I think on account of the irritating and septic fluid (which was considerable) from the gland, and partly due to the want of sufficient circulation in the skin flaps after having been torn from the adherent organ. Notwithstanding we left an excess of two inches of flaps, there was a contraction in healing until it barely covered the wound. The right gland was amputated Sept. 16th, weighed 13 pounds. The left was removed Oct. 2d, and weighed 11½ pounds. Two weeks later she returned home in good health, and has since remained so.

Dr. Wm. Krauss of this city has kindly prepared a report of the microscopical appearance of these organs, which is the most interesting part of the case, and reads as follows:

Dr. T. J. Crofford, City:

The tumor sent me for examination is one of those rapidly growing circumscribed benign neoplasms which have been variously styled diffuse adenoma, acute fibro-adenoma, acute diffuse hypertrophy, etc.

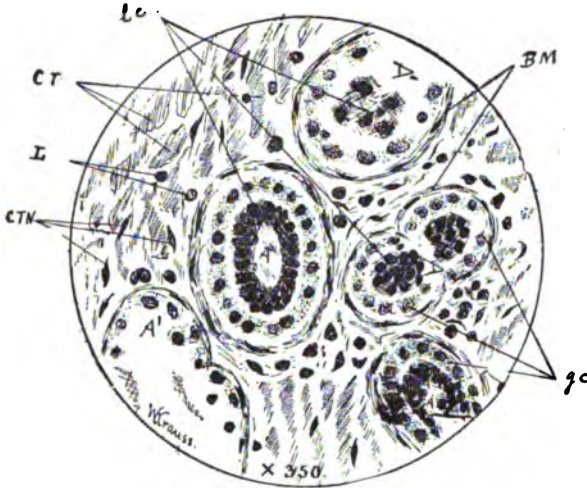
Macroscopically it appears like a fatty tumor, doughy to the touch but rather more nodular, with firm centers. On section it looks white, with very few vascular spots, soft in portions. The exuding juice consists of fatty and granular cells. Some portions are firm like collections of fibromata. Near the base of the tumor and a little to one side, a pink mass the size of a walnut was found, differing from all the balance of the growth, both in gross and microscopic appearance.

Under a low power the tumor is seen to consist mostly of fibrous stroma without fatty tissue, the gland tissue being in places normal, but everywhere pervaded by the growing fibrous matrix, showing every gradation from simple increase of stroma to complete destruction of gland, loose epithelial cells being imprisoned like in a very firm scirrhus. For the most part it looks like fibro-adenoma, the cells lying in open spaces, often arranged in concentric layers surrounded by a wall of firm fibrous tissue.

Under a high power the connective tissue can be seen to split roughly, the bundles interlacing, hyaline or cloudy, with very few nuclei. The acini are in some places nearly normal,

though apparently dilated and filled with deeply staining cells arranged in one or more layers. Numerous lymph channels pervade the mass and here the process of formative tissue generation can be seen in all stages: escaping corpuscles undergoing mycosis, young connective tissue cells in the act of growing and elongating, etc.

Osmic acid preparations show a few minute fat globules scattered through all the tissues.



Microscopical section of tumor, 350 diameters. *A*, acini nearly normal, but dilated. *BM*, basal membrane. *gc*, gland cells, margins of which are undefined protoplasm and nuclei granular. *lc*, cells lying in lumen, result of proliferating activity of *gc*. *A'*, acini disarranged by pressure of connective tissue. *CT*, connective tissue split coarsely, cloudy degenerated, strictly diagrammatic. *CTN*, connective tissue nuclei.

The macroscopically pink portion differs from the main mass principally in not having any normal gland tissue in it; the acini are only masses of highly staining cells without any effort at arrangement. The stroma is characterized by having a large number of nuclei, the connective tissue being embryonic in appearance; a few nuclei give the impression of being those of unstriated muscle, particularly around the epithelial collections which take the place of acini.

In the place of duct lumina there are open spaces in the spindle-celled stroma filled with the same dark staining cells found in the more normal acini and ducts.

We thus have a rapid growth simulating cancer, adenoma, fibroma and hypertrophy, but yet not corresponding entirely to any of these.

The points of difference between this and the one described by Billroth in one of his two cases are, the entire absence of glandular activity beyond the proliferation resulting from direct pressure, and the relatively smaller amount of normal gland tissue. We have in the pink portion described above very probably one of the "sarcomatous nodules" spoken of by Billroth in his case. Billroth's description coincides with this more than the diagram given, for in no portion of this growth are the acini so abundant, and I doubt if physiological activity were possible to any extent in this case, certainly not an increased one, without which there can be no true hypertrophy.

Acute diffuse hypertrophy is no doubt a good name clinically, but histologically we have every evidence of primary hyperinosis without any signs of irritation—round cell infiltration, the gland cell proliferation being secondary.

The extreme coarseness and interlacement of the fibrous tissue stamps it as a neoplasm.

The most remarkable point in the histology of these tumors is that they are in every respect diffuse as far as the mamma is concerned, but do not invade the surrounding tissues.

Very respectfully, WM. KRAUSS, M.D.

THE CLINICAL TEACHING OF OBSTETRICS IN AMERICA.*

E. S. M'KEE, M.D., CINCINNATI.

Entering into this subject in a spirit of criticism, your essayist found much to commend. Since he last had occasion to investigate this subject, the improvement has been marked. True, there is still much room for advancement, but we have also cause to feel encouraged. Of all the civilized countries on the globe our own, usually the leader, proves in this instance the laggard. There was an excuse for this, in that the time for study was too short, funds too meager, the danger in a lying-in hospital too great, and the population too small and scattered to admit of obtaining material for the clinical teaching of obstetrics. These conditions exist at present in a much more limited degree. Every city in which the existence of a medical college should be condoned offers material which need only be grasped. This is being done by such well-known institutions as Harvard, the College of Physicians and Sur-

* Abstract of a paper read before the Obstetrical Section of the American Medical Association.

geons of New York, Bellevue, Jefferson Medical College, University of Pennsylvania, College of Physicians and Surgeons of Baltimore, and the Medical College of Ohio, Cincinnati. In this latter institution I have had some experience in laboring in the field in which the pioneer work had already been done by my colleagues, Drs. T. A. Reamy and E. G. Zinke. The experience of these gentlemen in starting the Obstetrical Clinic of the Medical College of Ohio, as well as some of my own in the same clinic, would furnish interesting matter for this section, did time permit; let us liken it to the labor of the primipara.

In many other medical schools of our country the science of obstetrics is admirably taught by pictures, models, illustrations of various sorts, but the vast majority of medical students in America graduate without ever having witnessed a case of labor. Until within the last three or four years this majority probably equaled 99 per cent. Many of our best teaching institutions have maternities connected with them. This is well, for here material is collected in small compass and the student can see more in less time, being also under the close supervision of competent instructors. Here he can be carefully inducted into the arts of inspection, mensuration, auscultation, percussion and indagation. Then, too, there is the out-door obstetrical clinic, which also has its advantages. It is much more similar to what the student will find when he goes out to practice. He will first be called to the hovels of poverty; here he must depend upon himself; here he is developed. It would be well for this training to follow that in the maternity, should both be at command. The ideal teaching of obstetrics is, a course of didactic lectures, with quizzing; the observation and conduct of a number of cases in a maternity, under the careful supervision of a teacher, quizzing following each case, and the student making a written report; then out-door obstetrical work, where the student is left on his own resources, with instructions to call his teacher in case of complications, which may be omitted with especially diligent students after a considerable experience.

Would it not be wise for this section of this, the American Medical Association, the light and guide of the American

medical profession, urging it on to higher and grander views of medicine, to declare with one strong voice that the clinical teaching of obstetrics should be a part of the regular course in every recognized medical college in America? With the seal of such approval, those laboring in this field will be given great strength, courage, and hope.

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

ON THE HISTOLOGY OF
PARTIAL DEAFNESS OF BOILER MAKERS.

J. HABERMANN, M.D.

Author reports on quite a number of observations made on boiler makers, and relates a case of a very deaf old copper miner who was killed in a railroad accident.

Macroscopically there was nothing of importance; microscopically there was found on the membrana tympani and adjoining portions of mucous membrane a moderate amount of calcareous deposit, which was considered to be senile alteration. In the inner ear, besides hemorrhage in the internal auditory canal in consequence of the injury, there was an atrophy of nerves in the cochlea, which change was noticeable to a less extent in the ampulla. At a certain point in the base of the cochlea on both sides, the organ of Corti, membrane of Corti, and the nerves in lamina spiralis were absent and replaced only by a little connective tissue. In the canal ganglionorum only few ganglion cells were visible. In other portions of the cochlea the organ of Corti was still recognizable as such, though altered.

Author is of the opinion that these pathological conditions in the base of the cochlea, where the higher notes are perceived, are to be considered as changes due to continuous irritation by high tones. The stapes was dislocated outward, evidently from continuous contracture of stapedius, a circumstance which would appear to verify the opinion. A portion of the alteration is considered as due also to senile influences.

The Memphis Journal of the Medical Sciences.

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EDITORIAL CORPS.

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Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this. Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting. All matter must be in our hands on the tenth of the month preceding its publication. The JOURNAL will be issued about the fifth of each month. All communications should be addressed to

WM. KRAUSS, M.D., Business Manager. JAS. L. MINOR, M.D., Editor.
Memphis, Tenn.

SUBSTITUTION.—This is an age of specialties. The manufacturer of special preparations has many advantages over the general manufacturer and the retailer. He buys at the proper season and gets the pick of the market. He has experience in selecting and working up the drugs he employs. His products, thanks to pains, labor and experience, are uniform and reliable, and the physician has learned to place confidence in them. The success of such preparations often becomes an inducement for less scrupulous parties to offer substitutes on the plea that they are "just as good and cost you less." Frequently, too, the intelligent pharmacist himself imitates the preparation. The result is but too plain. The manufacturer, to whom the profits belong, is cheated out of his trade, the physician is disappointed, and the patient remains unimproved. Not until then comes the richly deserved reward for the unscrupulous apothecary: he loses his customers and the esteem of the physician. We put the matter in this moderate light in the hope of convincing substitutors of the error of their ways. The application of the golden rule ought to convert any but a case-hardened fraud, and no punishment can be severe enough for him.

DR. Alexander Erskine has retired from the editorial corps of the JOURNAL.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday, Thursday and Friday, Oct. 14, 15 and 16, 1891. A large attendance, a valuable program and a good time are expected. The members of the medical profession are respectfully invited to attend. C. H. Hughes, M.D., President, 500 N. Jefferson avenue, St. Louis. E. S. McKee, M.D., Secretary, 57 West Seventh street, Cincinnati. I. N. Love, M.D., Chairman of the Committee of Arrangements, 301 Grand avenue, St. Louis.

PEPSIN.—Messrs. Lehn & Fink publish a critical review of the question by Dr. Carl Friedr. Witte, of the University of Rostock. The author makes two points in the comparative tests which we can verify :

1. The comparative value of two pepsins is as the requisite proportions necessary to produce the same action under the same conditions.

2. Comparisons of potency of pepsins based solely on the residue proportions of the albumen, as obtained by equal experiments, are absolutely incorrect and fallacious. The standards of the various countries for proteolytic strength are given.

As the hot season is approaching, every physician should study the pamphlet.

MARRIED.—Dr. W. L. McCullough, Class '91, and Miss Mamie Barton, at Methodist Church at Randolph, Tenn., Thursday, April 30th. Dr. McCullough is located at Fulton, Tenn. The JOURNAL sends hearty congratulations.

ONLY A SAMPLE.—Please find enclosed postal note for one dollar, our dues to your excellent journal. Excuse delay and believe us your true friends,

Buckner, Ark.

SEARCY & WARREN.

Dr. J. L. Minor, who has been ill for some time, is at Pass Christian, Miss., for his health. We crave the indulgence of our readers for any shortcomings in the editorial department.

Dr. Daniel Morton has retired from the St. Joseph *Medical Herald*. The JOURNAL wishes him success in anything he may undertake in the future.

Dr. D. C. Watt has removed from Wabbaseca to Altheimer, Ark.

Dr. M. R. Purnell, Class '91, is at Ashwood, La.

Many subscriptions received from students of Class '91 remain dead, as we have not been notified of present location.

BOOK REVIEWS.

FEVER: Its Pathology and Treatment by Antipyretics (Boyleston Prize Essay). By Hobart Amory Hare, M.D., B.Sc. F. A. Davis, Philadelphia, publisher. Price \$1.50, net. 172 pages.

A very complete consideration of the pathology of fever, and the physiological action and therapy of antipyrin, antifebrin, phenacetin, thallin and salicylic acid. The pathology of fever is given in the introduction. Separate chapters are devoted to each of the antipyretics, giving of each, 1st, experimental evidence, with excellent plates of kymograph tracings; 2d, clinical evidence, with tabulated matter on untoward symptoms, etc. Appended is a short chapter on cold bathing for high temperatures.

MEDICAL SYMBOLISMS in connection with Historical Studies in the Arts of Healing and Hygiene. Illustrated. By Thomas S. Sozinsky, M.D. F. A. Davis, Philadelphia, publisher. Price, cloth, \$1.00 net.

A full and complete treatise on the subject of medical mythology, and containing "remarkable matters pertaining to medicine, most of them of a very ancient date, and some of them of practical importance." It is extremely interesting and deserves to be widely read, as it tends to stimulate interest in that which is literary and historic in medicine.

MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. Vol. II. By Jno. V. Shoemaker, A.M., M.D., Professor of Materia Medica, &c., in Medico-Chirurgical College, Philadelphia. F. A. Davis, Philadelphia, publisher. Cloth \$3.50, sheep \$4.50. 1004 pages.

This Vol. II, the publication of which has been unavoidably delayed, is as thoroughly original and practical as the first. It includes all the latest remedies up to date, with useful formulæ for their administration. Tuberculin, its discovery,

physiological action, therapy and summary of present status of the treatment, is given a place in the text. The author has refrained from putting drugs under classified heads, a plan which merits the approval of every busy practitioner. A general classification is given in the introduction. An appendix of formulæ and a table of doses conclude the work. If we have any regrets to express, it is that the author has entirely ignored the metric system.

READING NOTICES.

Sal Aseptic, manufactured by our friend, Mr. J. C. Terherne, is the most elegant and efficient remedy in vaginal leucorrhea. It is a handy and reliable antiseptic. Doctor, try it!

The attention of our readers is called to the advertisement of Robinson - Pettet Co., which appears in this issue. This house is one of long standing, and enjoys a reputation of the highest character. The preparations referred to, we commend specially to the notice of practitioners.

J. M. Miller, M.D., of Blossburg, Ala., writes: I received your Febricide Pills yesterday and at the same time had a call to see a lady who was suffering from a severe attack of inflammatory rheumatism; she objected to morphine on account of the nausea, and I administered one pill febricide, which was followed in one hour with a reduction of temperature from 104 to 102½; she turned over, said good-night, and slept through the night well.

In Vol. II of Grailly Hewitt on Diseases of Women, edited with notes by H. Marion Sims, M.D., edition of 1888, is the following: "For severe dysmenorrhea I have frequently found Hayden's Viburnum Compound of great service, given in teaspoonful doses every hour for three or four hours."

X. B. Haynie, M.D., of Gallatin, Tenn., writes: I have frequently used the Three Chloride Elixir and find it entirely reliable. It is one of the happiest combinations in all the preparations now used.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., JULY, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY
B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

VAPORS FROM THE VALLEY OF ARKANSAS.

J. C. MINOR, M.D., HOT SPRINGS, ARK.

The best people of Hot Springs, Ark., are indignant over the action of the State Board of Medical Examiners, who have reversed a decision of the county board convicting one Dr. Wallace of violating the recent act of the Legislature making it a misdemeanor for any physician in the State to employ what are known as "drummers," "steerers," and "cappers," for the purpose of procuring practice.

The man Wallace admitted to the county board that he had to resort to this nefarious business in order to feed his family, and so the Little Rock Mercy Seat allowed their sense of justice to be swallowed by sympathy for the man's misfortune—in selecting a vocation.

The board should receive the condemnation of the professional world for their negligence in not assisting the people of Hot Springs to fashion a fair name for their handsome little city, which has heretofore been misrepresented and abused, and, too, by people who never had the pleasure of visiting its limits.

Hot Springs, Ark., through the medium of the State Medical Society, tendered an invitation to the American Medical

Association to hold its next annual meeting at this celebrated health resort, for these reasons :

Because there are 15,000 liberal and hospitable inhabitants who would have taken pleasure in entertaining the society royally.

Because, the hotel appointments are ample for entertaining even much larger bodies, and for elegance are hardly excelled in the world.

Because there is ample room for seating the society, even in the event that no member be absent, from A to Z.

Because, the public at large have an erroneous idea of the culture and refinement in the little valley, believing it to be filled with none but syphilitics, gamblers, thieves and fakers.

Because the profession believe the entire circle of physicians to be quacks and charlatans, and that no good thing can come out of Nazareth.

The American Medical Association will not meet in the city of Hot Springs although nominated by the nominating committee :

Because (it is understood) one or two of Hot Springs' venomous doctors successfully reported at Washington that Hot Springs has no hall large enough to accommodate so large a body. This was maliciously reported to gratify personal prejudices.

TREATMENT OF ACUTE DYSENTERY.

Read before the Kentucky State Medical Society, Louisville, Ky., May, 1891,

BY ROBERT C. KENNER, A.M., M.D.

There is possibly no disease which will more greatly tax our resources, and which will require more skill and patience in its management than acute dysentery.

The room which the patient occupies should be light and comfortable. While it should be properly ventilated, care should be exerted to prevent our patient from becoming chilled at any time. The bed covering should be adequate to prevent any draught of air from producing this effect. The patient should be directed to keep his bed. Any movement on his part will tend to increase the number of actions from

the bowels, and, at the same time, make demands on his strength, and in cases where there is much debility, of course, make possible a failure of the heart. Let us divide the cases of acute dysentery into two classes :

First.—The Ephemeral: This embraces a class of cases all practitioners meet ; it is the mildest form of catarrhal dysentery, and commonly lasts no longer than twenty-four hours to four days, even when no treatment whatever is employed. These cases are attended with slight inflammation, and are, in every way, ephemeral. In the *second* class I shall include those cases which persist, after four days, with increasing severity, or those which, from the beginning, show themselves essentially severer than the first-named variety from their incipency, and which are denominated catarrhal and diphtheritic generally by the authorities. Between these types, however, there is only a difference of degree of intensity of the disease, and this division of the subject into two categories has only for its object the convenience it affords in the discussion of the treatment. In the treatment of the first-named variety, rest is the essential curative factor. But this may be increased by producing its conditions. To insure perfect rest it is best to administer sulphate magnesia and sulphate of morphine. We in this way remove all irritating matter from the bowel, and the opium brings about the desire to sleep. These supply the demands in those cases perfectly, and it is rare for another dysenteric action to appear after the sulphate magnesia has acted. The *second* class of cases, however, yield not so kindly, and for its relief the methods of treatment and various drugs used are very numerous. It shall be my aim in this paper to give consideration of only those which have been attended by results that would command respect or which have been advocated by gentlemen whose prominence and reputation as investigators in medicine inspire our confidence. A treatment which numbers among its advocates Bartholow and several good observers is one which advocates the administration, as a leading remedy, of the sulphate magnesia. This remedy alone is one, which in my hands, has not proven satisfactory, but I depend on it rendering me assistance in connection with other remedies. A careful trial of the drug, will not, I think,

demonstrate its value at all as a curative remedy. It has failed to lessen the duration, in my cases, to the extent which I accomplished with other remedies. I am inclined to believe that the treatments by saline cathartics alone owe their place in medical literature to an illogical understanding of cures that appear to be accomplished by them.

First, there will be, in all epidemics of dysentery, cases belonging to the first named class, and others not quite so mild, which recover in a few days. These are, illogically, put down as cures brought about by sulphate magnesia, while all experienced physicians know that many cases would have recovered without any treatment. Again, treatment by salines has gained strength by a comparison of statistics of cases treated by it with those treated by methods formerly in vogue. These statistics embrace those treated by mercury, blood-letting, etc., and are not of a character with which to compare any modern treatment. My own experience has been against the treatment, yet I find the sulphate magnesia a valuable adjuvant in the treatment of this affection. It evacuates the bowels well and exerts a mild refrigerant influence. In the year 1859 Mr. E. Scott Docker, an English army surgeon stationed on the island of Mauritius, used ipecac in fifty cases, losing but one out of that number. To him belongs the credit of again bringing to the consideration of the medical profession a drug which for a long time had been buried in oblivion. This remedy had been introduced by Piso, who had seen the brilliant results which had been attained in the treatment of this disease by the natives of Brazil. It was used as a secret remedy for a long time, with much success, in France. Owing to a quarrel over the profits from its sale the secret was made public. For a time the demand was very great. But it came, after a time, to be regarded as less valuable than was at first thought, and it soon fell into disuse. I have always thought the abandonment of this agent was due to its indiscriminate use and to its application in cases of diarrhea due to many causes. I believe it is not exaggeration to say that since the introduction of ipecac by Docker, thirty years ago, it has been the treatment most relied on by the greatest number of practitioners, and has obtained the greatest meed of praise at their hands.

In regard to its action, allow me to quote from Begbie: "The therapeutic action of the remedy has been variously ascribed to its nauseant, its diaphoretic, and its laxative or purgative effects." The latter was the view entertained by that distinguished writer, Sir John Pringle. Dr. Maclean thus expresses himself in regard to it: "It is probable ipecacuanha owes much of its usefulness in this disease to its action as an evacuant. It is also a blood depurant of an effective kind. It appears to increase the secretion of the whole alimentary canal, as well as the liver and pancreas; under its use tormina and tenesmus disappear, and feculent evacuations are more quickly restored than by any known remedy." Ewart and other great observers regard it as without a doubt the most valuable remedy at our disposal. Shoemaker mentions that this drug has been used with the most striking results in the treatment of dysentery.

I have found, in conversations with medical men, that they, to a large extent, fear the emetic qualities of this drug to such a degree that they hesitate to use it. This fear is ungrounded. It does not produce emesis at all in a large percentage of cases if the proper precautions are observed. But if it should produce emesis, this should not deter us from the use of so great a remedy. Emesis does not continue long, even when it occurs. It does not, except when there is great exhaustion, carry with it the slightest danger to life. But on the other hand, the production of emesis has been recommended as a curative agent by able observers like Pringle, before the ipecac treatment had any following in this country or England. Relative to its mode of administration, allow me to quote somewhat at length from Maclean. He says: "The patient should be at once ordered to bed, and as quickly as possible brought under the influence of ipecacuanha in large doses. Some insist on the propriety of first giving a full dose of Battley's sedative, tinct. opii, or a few drops of chloroform, with the intention of making the stomach tolerant of the remedy, and restraining nausea and vomiting. I believe that the sedative in some cases is useful, and acts in the manner just described. On the other hand, I have often seen ipecacuanha do its work well and with little disturbance of the stomach, without opium.

Should it be determined to premise opium, thirty drops of the tincture, and an half-hour after followed by from twenty-five to thirty grains of ipecacuanha, which should be given in as small a quantity of fluid as possible ; a little syrup of orange-peel covers the taste as well as anything else. As already advised, the patient should be kept perfectly still, and abstain from fluid for at least three hours. If thirsty, he may suck a little ice, or a teaspoonful of cold water at a time may be allowed. It is seldom that, under this management, nausea is excessive, and vomiting is rarely troublesome, seldom setting in for at least two hours after the medicine has been taken. The abdomen should be covered with a large sinapism, or a sheet of spongopiline sprinkled with a little turpentine, after being wrung out of hot water. In from eight to ten hours, according to the urgency of the symptoms and the effect produced by the first dose, *ipecacuanha* in a reduced dose should be repeated, with the same precaution as before."

In my own practice the use of ipecac is, however, somewhat differently combined, though in the main I have followed the method just quoted from Maclean. It is my custom to give an hypodermic injection of from one-fourth to one-half grain of sulphate of morphine. I have also a piece of thapsia plaster applied over the epigastrium. My results with the ipecac treatment have been all that could be desired, and I have found that in ninety per cent. of the cases treated with it as the principal agent, it brought about a cessation of the disease quicker, by from five to fifteen days, than other methods. The length of time which was consumed in bringing about the results will be considered later on.

It is my practice to give salol, in doses of five grains, every three hours, after six hours from the initial dose of ipecac. This has, I feel assured, rendered me substantial assistance in that it exerted an antiseptic action on the alimentary canal, relieved the gaseous distention and colic, which are often so annoying as to cause the patient the greatest discomfort and pain. Salol has itself, some reputation as a remedy in dysentery. I am not prepared to speak of its powers when used alone, but I am sure when given along with ipecac its virtues will display themselves to the satisfaction of any candid observer.

It is important to say that I premise the treatment of all cases of acute dysentery to which I am called by a dose of sulphate magnesia, and six hours thereafter, when there has been a thorough feculent evacuation, I administer the ipecac in the manner already outlined. Throughout these cases it was necessary in many instances to employ as adjuvants many other agents, which will be considered under separate heads.

The treatment by opium has the indorsement of Sydenham and others down to Prof. Flint, and several other able physicians have given it the most sweeping praise. It is usual for those who use it as the leading remedy to first clean out the bowels with castor-oil, or another laxative, and then give opium at such intervals as will secure quiet.

In regard to the use of opium in dysentery, Heubner says: "Especially is it impossible with opium or morphine to keep the bowels at rest all the time. The colic and tenesmus are, indeed, moderated for awhile, but they return after a time, even in spite of larger doses, and are then more violent than before. Besides this the state of stupefaction and heat into which the patient is brought by the use of opium is decidedly unfavorable in dysentery. I would therefore, in common with the majority of writers of this century and the preceding one, not give my approval of the methodical use of opium in dysentery, and would only use this drug temporarily, and as a palliative remedy.

My experience bears out the correctness of Heubner, and it is only when there is great pain, or persistent nausea, or, as has before been stated, we desire to prevent nausea, or sleeplessness, which no other drug can supply, that I administer opium. The reasons given by Heubner must be regarded as a valid and unanswerable argument in favor of the surrender of opium as a curative remedy for dysentery. At the same time its place could not be supplied well, and it will afford us assistance which we will not find easily in other palliative agents. The treatment by rectal injections of a solution of nit. of silver, or alum, or other astringents, is a practice which has had a following from the time of O'Beirne, in 1834, down, who have claimed results which were the most brilliant imaginable. Recently Prof. Whittaker has advocated this treat-

ment. Many able observers have given testimony as to the benefit derived from the treatment of dysentery in this way. I have not found it a treatment upon which I could place reliance, and have several times regretted having resorted to it. Just now there is not any generally agreed method of using these enemas. In children they are difficult of application, and several times I have found them very painful. It is possible at some future day the limitations of this treatment of dysentery may be outlined, and then it may be found that a certain class of cases will yield to them which before were intractable. Heubner, on this point, very justly says: "We must not expect too much from astringent enemas, for in the majority of severe cases much too small a surface is reached. In the dysenteries of 1870 I used the much-renowned nitrate of silver enemas almost without any evident good results; on the contrary, the pain was increased."

The treatments by blood-letting, or mercurials, have not at this time sufficient following to warrant a consideration here. Their place is only an historical one. The use of tannic acid, sulph. of copper, nit. silver, catechu, sub. nit. of bismuth, and a long list of astringent medicines, have been lauded by different writers at different times, but no one of these can be said to possess the power of abridging the duration of the disease. Yet when the disease is subacute, or when there seems to be a want of tone of the alimentary canal, these agents occasionally do good. The nitrate of silver sometimes is excellent in this demand. So will arsenite of copper, under circumstances like the one spoken of, yield us the happiest results. Recently the arsenite of copper has been lauded as a remedy of surpassing value, but in a limited experience with it I have not found it all that could be desired.

The question of diet is one of the greatest importance. Nearly all practitioners have seen the balance of life tip to the wrong side from improper indulgence in food. The diet should be fluid, as nutritious as possible. Milk, fresh, and when necessary peptonized, is an important article. This should be given at frequent intervals throughout the disease. I most generally give some eligible preparation of pepsin immediately after taking the milk. This assists the weakened digestive forces, and

prevents in that way the formation of milk curds, which would be as injurious to the diseased surface of the gut as the passing of feces. I alternate the milk with liquid beef peptonoids, and find the result to be good. The diet must be watched with considerable care until the convalescence has progressed unto a very considerable extent. Some authorities recommend allowing patients to eat ripe fruits when convalescence has set in fairly. This I have tried in ten cases, with the result of relapses in all of them. I was unable to attribute it to any other cause, and must, therefore, charge it to the fruit. Since this unpleasant experience I have not allowed my patients to eat fruits—at least early in the convalescence. In fact, I charge them to make this one of the last articles to return to.

The question of the use of stimulants is one of the greatest importance in its bearings on the treatment of this disease. When the nature of dysentery is borne in mind, that it is an exhausting disease—one which soon brings stout people to be lean and strong ones weak—and in those who are delicate there is constant overexertion put on the heart—I think it will not be questioned that the proper administration of stimulants is a most proper and necessary course of action. In those who are strong it will not be necessary to give stimulants so often—every two or three hours, or oftener, if the patient is required to get up often. In delicate persons, brandy or some other stimulant should be given every hour or oftener, and in such quantities as will keep the volume of the pulse good. This will require an amount which the study of the particular case only reveals. Brandy, or milk-punch, or egg-nog, will be about our best remedy.

Another important consideration is fever. When the temperature does not attain a higher range than 103 F., it may correctly be regarded as a conservative process, and does not call for special medication. When there is a fever which we think is due to malaria, then it is our duty to prescribe quinine, but not without there is evidence of this fact. There are cases in which the fever will mount to 105 or 106, and in those cases it is to be determined what measures shall be directed to the fever. I believe that if the fever is malarial nothing but quinine should be given; and, due to other causes, our

reliance in reducing it should be put upon sponging the body with tepid water; and we should not fly to antipyretics until the last resort. These agents depress the heart, and make no substantial change for the better in the weak; yet it is occasionally right to resort to them, but it should not be done unless the fever attains a dangerous height.

There is probably no more distressing feature in this disease than tenesmus. For its relief several remedies have been offered, but none are all that we could desire. The application of bladders of cold water to the anus has been, in my hands, one of the best remedies. I employ occasionally leeches to the margin of anus, but find them no more beneficial than the cold bladders, and their application is disagreeable to the patient. Carbolized vaseline smeared in and around the anus will afford a measure of relief and is worthy of trial. Prof. Loomis and several authors like warm applications to the abdomen. I have found poultices and all manner of applications which are laid upon the abdomen useless and awkward. They have to be removed when the patient arises, and are constantly falling off. This leaves the abdomen more exposed than if nothing were applied. I use in many cases turpentine liniment applied over the abdominal surface. This is especially valuable in cases where there is much gaseous distention of the bowels.

In conclusion, allow me to return to the ipecac treatment and say that out of sixty cases treated by this method ninety per cent. recovered in an average of twelve days. The remaining ten per cent. continued and became chronic or went beyond this time considerably. The test of the value of a given treatment is its ability to lessen the duration of the disease. In Flint's cases under the opium treatment the duration was from four to twenty-one days. This, of course, comprised cases of the ephemeral type. Heubner's cases are put down as light cases, eight to thirteen days; diphtheritic, three to four weeks. When these facts are brought to mind it would seem that ipecac treatment is above all other methods at our disposal.

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

THE AMERICAN RAILWAY HOSPITAL DEPARTMENT.

W. B. OUTTEN, A.M., M.D., ST. LOUIS, MO.
President National Association of Railway Surgeons.

The progress of the railway has ever been a fruitful theme for the political economist ; its extent, its influence upon the social body, its capacities for creating and molding centers of population ; influencing every avocation of life ; changing the physical face of nature ; annihilating distance, changing communities by intercourse, spreading energy and intelligence, developing every region brought in contact, producing wealth in all directions ; this ease and celerity of contact developing the best elements contained in our race. Full of the most powerful elements which constitute our existing civilization ; a veritable world in itself, employing millions of persons in its operation. No position in life being free from its influence, professions used in a more extended manner than ever before ; changing and adapting by the sheer force and power contained within it, the character of professions used by it, according to its growth, wants and protection, enlarging the scope of action of certain professions and molding them in spheres both important and extensive. The application of immense power, rapidity of motion, and multitudinous adaptation of machinery, necessarily incurring danger by defying many of the laws of nature, its operations creating injuries of a definite and almost specific character, the medical profession is needed and required and molded to the exigencies of its operations.

The history of the medical profession connection with the railway, has been one of slow and doubtful recognition, viewed in the light of a necessary evil ; always coming with seeming misfortune ; judged by a pre-existing prejudice ; grudgingly rewarded, and employed almost always amidst uttered or un-

uttered protests. Being necessary and expensive, the keen business executive of the railway has used various devices to economize and still command the profession ; using the influence of a doubtful position, using adroitly the influence of that most potent overestimated vanity-producing element, soul-soothing and far-reaching unknown quantity, a pass ; made collections for well-earned fees arduous and uncertain, using the profession at times to warp the truth, which always proved detrimental to both, engulfing individuality, ignoring and changing the nature of the surgeon's avocation from an honorable surgical standard to one of doubtful legal caste ; appreciated and treated capriciously, defining his true position rarely, the intermittent character of his services leading to this. Even now, in a goodly number of instances, while employed ostensibly for their ability from a professional point of view, are but too frequently used for this unconsidered work in fields foreign to the true nature of his profession. Some of the profession think that the railways employ them for the purpose of defrauding justice, controverting truth, and exercising functions of a generally questionable character. There is no middle or doubtful course for the profession ; if they do not maintain the noble dignity of their calling, certainly none outside are likely to. No physician in the service of a railway company can afford to lose his individuality, employed for specified purposes professionally, and to be of the best use must exercise them with strict conformity to this ; the very instant he swerves from the real standard of his calling his effectiveness ceases, and it is only a short matter of time when distrust becomes a potent factor, only to ultimately be an object of suspicion and contempt by those employing him. The physician in the service of the railway company, in order to be of genuine use, must ever subserve the real purpose of his avocation. True and honest as regards his ministrations, employed purely for professional capacity to accomplish solely surgical results, ever maintaining honorably the duties required from both patient and company. No railroad can afford to sustain a weak, vascillating, dishonest official, and no honorable, high-minded, zealous and truly devoted physician can afford to serve a company except upon the true and noble

nature of his calling. The true physician ever estimates the real value of his service ; when he underestimates his value, the world views and judges it according to the estimates so placed. The really valuable man is the one who is true to his calling, honest to his administration, unswerving in his devotion to the true standard indicated ; honesty, industry, faithfulness, humanity, are its foundation elements ; these ignored the true physician ceases to exist and becomes a servile creature to venal circumstances. The best talent manage the railroads of our country, and in many instances the proper professional standard is understood and demanded, and every chance given to the surgeon to develop and utilize this capacity in a proper and correct manner. Appreciated, trusted, and employed solely by virtue of his standing in the profession, he has become an economical element in its management. Placed in positions of executive work, and granted the privilege to grow and develop along with some of the great systems now being evolved. It has been the West first to fully appreciate his services. Necessity first indicated the procedure, necessity and experience has continued his growth and expanded his usefulness ; not until, however, the railway had extended over trackless plains, or wound its way among tortuous canons of mountain ranges, in thinly or unpeopled regions, was he acknowledged as an integral part of a railway. He is now acknowledged as an essential factor in the management of thirty-nine lines and systems, employing him as chief surgeon and managing departments in their professional capacity over nearly 76,000 miles of railway. Thirteen hospital departments upon some of the largest systems in the country owning some twenty-five hospitals, and treating annually over 126,000 sick and injured employes. All of these departments are self-sustaining and supported by assessments levied upon their employes, this being done in a majority of instances upon an assessment of 25 and 50 cents a month. They enable the employe to be moved from unhealthy regions to more healthy ones, concentrate the injured, and supply advantages not otherwise to be obtained. The management supply passes to and from any part of the line, as deemed best by the surgeon in charge of its hospitals and emergency stations. Employes

are brought to hospitals from malarial portions of the country to non-malarial, and it is placed in the power of its humblest employe to change from bad to more healthy and salubrious climes ; places it in the power of the hospital department to accomplish cures by the fact of this change, which otherwise could not be accomplished. The departments are enabled to send the consumptive to climates better fitted for his treatment and cure, which a lack of means on the part of the employe would oftentimes debar. The employes assert that they save money in the assessment which constitutes the hospital fund, as prior to their establishment sick and injured employes were helped out by co-employes and friends contributing to subscription lists carried about by the generously inclined, and that it was not uncommon for them to give, under such circumstances, fifteen, twenty or more dollars a year for such purposes, but since the establishment of the hospital departments, those who needed assistance in this direction rarely need it now, as twenty-five and fifty cents a month paid in assessments entitled them to the best of care and treatment, and they were under obligations to no one ; that while some might doubt the right of assessment, still this point was not now considered, but how much benefit was rendered to those who really needed it. While some might not partake of its benefits, many good and worthy persons were accorded the best of care and attention without humiliating circumstances connected with it, all diseases except those arising from vicious acts being treated. Prominent specialists are employed by many of the hospitals, the oculist, aurist, throat and lung specialist, dermatologist and bacteriologist, a regular staff of surgeons, enabling the employe to receive treatment at the hands of some of the best men in the profession at no extra cost. Prescriptions filled and sent out on the road to any employe requesting them ; artificial eyes, trusses, elastic bandages, preventive measures, vaccination, employed in many thousand cases. The experience acquired by its surgeons in treating a great number of railway injuries enable them to accomplish better results than when a surgeon only treats them in isolated instances. The departments are well supplied with means, and its hospitals possess paraphernalia

and armamentariums of superior stamp and not confined to necessities and rules governing elementary institutions; have subsistence departments of the best and highest order. They have stood the test of time, even amid strikes, for many years, and must certainly possess merit, as the compulsory elements of assessments would naturally produce prejudice unless some redeeming virtue was constantly manifest. The smallness of the assessment is not deemed a burden by the employes, and the departments are viewed as a benefit. They relieve the States through which the roads pass, in many cases, of pauperism, as without them many persons would be thrown upon the care of the State. That they have been the means of saving innumerable lives, and by judicious advice preventive measures saved the employes both time and money. That they, these departments, are the best possible form of charity, as work and independence are involved, and not idleness and dependence; that the union of the railway company and the contributing employes has evolved an institution of greater benefit, of less cost to its beneficiaries, than any similar institution yet submitted. That by an interchange of patients from one system of hospital to another, their benefits could be greatly broadened; the consumptive and malarious patient sent to non-malarious and mountainous regions; the rheumatic and catarrhal to more congenial climes of the South, and by the climatic interchange, many worthy and valuable lives benefited and saved at no extra cost to either hospital department; that these hospital departments managed for the humane purposes intended, and in close alliance with the claim departments, recording a complete history of every injury, giving truthful and early statement, being cognizant of the real condition of the injured, constitutes the best element of settlement, and a corresponding lessening of litigation being essentially economic and humane in their basis. That with the powerful aid of the railway, with well-equipped and properly conducted hospitals, there is no difficulty in getting the employes to appreciate their advantage and patronize—the smallness of the assessment necessary to maintain the extended character of the treatment as exemplified in the employment of a good staff, specialist, trained nurses, the character of para-

phernalia and armamentarium, the character of subsistence, the extended climatic change, the results which experience gives, certainly make them competent to be not only useful and desirable but as complete with therapeutic elements as any system of medical aid that could be well suggested. A well organized hospital department, with complete medical staff, is susceptible of but little expense, to be utilized in all measures pertaining to prevention. Attend to hygienic elements pertaining not only to the individual, but to the physical condition of the road, give guidance to the individual as to the best manner of caring for self, train them in the way of using that which is best for their health and avoid those things which are hurtful; in no field can be greater humanity shown than in this; in no field can greater good be accomplished, as it means the saving of time, money and suffering to many persons that could not be taught or reached other than in the manner thus indicated. Utilized to study the unhygienic surroundings environing the road, analyze all waters, indicating those which should be used and those which should not be used, the proximity of the water supply to doubtful and dangerous places; remedy unhygienic conditions as regards cars, shops, buildings and other places, and interse, inspect every source from which ill health seems to result. The proper sanitary work upon any road would not only be for the better being of employes, but to the community, and in time of epidemics be a most potent force in accomplishment of results beneficial to the State at large. With accumulating intelligence on all sides and the natural tendency toward the organization of classes in various protective associations—the result of conditions previously existing—makes it imperative upon the part of corporations to study the impelling motives which caused, and the remedy best suited. The broadest and most humane course offers the least chance of differences; humanity is ever a means which, when well used, produces results both gratifying to the user and receiver. The ranks of employes in the railway service abound with persons of good, hard common sense, and as thoroughly appreciative of that which is just and humane as any class of men could be; discerning, practical and generous, appreciative of merit;

competent by unceasing contact with many people to be their own judge ; self-reliant, quick to discern virtue and advertise the fact, as any class of persons. We find, after fourteen years of experience in this character of work and frequent talks with all classes of employes, that they naturally (the same as all other men) predicate their appreciation of the various plans employed by the railway for economy and relief, of its insurance, or hospital department, upon their cheapness and extent of service. Naturally desiring to manipulate their insurance by and through the various organizations with which they are connected as accident companies just in proportion to their own desire and ability. If compelled to pay and aid in sustaining any of these institutions, of course they select the class which costs the least money and gives, according to their ideas, the greatest amount of benefit. Their own protective associations already formed and embodying excellent plans of insurance, both as regards life and permanent disability, makes them favor the plan which benefits them most in their frequently dangerous avocation ; hence, the popularity in certain regions of country of a well-conducted hospital department. It can be stated with absolute certainty if the hospital departments were deemed a burden, and did not possess merit, they would have soon ceased amidst most violent and determined protest. That they still exist and continue in growth, plainly indicates that they are deemed of value by the employe, for compulsion is their basis, which readily and ultimately arouses all that is combative when deemed unjust. We can state with perfect truth that the employes not only view them with decided favor, but expressed not only a willingness to contribute more in the event it is needed, and stood increased assessments upon more than one occasion. Let the railway but honestly endeavor by kind treatment and humane effort to better the condition of the employe in any direction, and it will at all times be met with intelligence, hearty, honest and earnest appreciation. If the hospital departments are extended so as to include not only all the best-known means of cure and treatment, including the extended climatic interchange of patients from one department to another ; the establishment of a perfect system of hygienic effort ; consid-

ering humanely, as far as possible, the well-being of all employes, which could be done at but little cost to either, and great good would certainly redound. It would be economy for the railway, benefit for the employe, and involves the best elements of the humane in a large and generous way, not burdensome to any concerned, obtaining the greatest benefit at the least possible cost, co-operative in every sense in which both parties do their best according to their respective ability. *The Journal of the National Association of Railway Surgeons.*

WHEN IS ANTISEPSIS A FAILURE ?

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Outside of a comparatively small circle of surgeons there are heard from time to time suggestions, which occasionally appear in print, that the system of "Listerism," so called, is a failure. Strange as it may seem, it is not very uncommon to hear some one say that in a given case "every antiseptic precaution" was adopted, but the result was bad. The speaker would have you believe that he had done his part and that the system was at fault.

Now it is worth while to consider briefly where the difficulty lies; and without entering the discussion of asepsis as opposed to antiseptis—absence of dirt versus sterilization of dirt—without advocating special methods or dressings, attention may be drawn to practical difficulties which lead to misunderstanding.

A few men like Mr. Tait vigorously attack the theory of Listerism, while they themselves carry out the principles underlying its success. The reputation of Mr. Tait, however, rests upon his operative work, and not upon his opinions or his explanations. When in characteristic style he says (*British Medical Journal*, Sept. 27, 1890, p. 728): . . . "The tone and attitude adopted by Sir Joseph Lister at Berlin clearly shows that the whole sad business is on its last legs," etc. Also (p. 729): "I venture to say that before the present generation has run out, the word 'antiseptic' will be all that is left to represent this strange structure." The harm that he can do is not great among the men who are doing the

best work in surgery, especially in general surgery. These cannot work for a day without discovering for themselves that their results are better or worse, according to their greater or less microscopic and chemical cleanliness in operating. Active surgeons do not care how Mr. Tait explains his good results. He might refuse to believe in the law of gravitation if he choose, but as long as he did not violate it, as long as he refrained from walking out of windows or off precipices, his opinion as to the law would make little difference. Most men care little that he denies the evil potency of germs and relies upon removing decomposable material from his wounds. They remember that he deals with a peculiar membrane and its neighborhood, that he is extremely clean in his work, and they will permit him to attack Sir Joseph Lister personally, and his impregnable principles, to his heart's content; principles of the widest practical application. The harm Mr. Tait can do is to unsettle the mind of the man who is beginning his work; and worse than that, his writings tend to salve the conscience of those who have had no training in genuine aseptic methods, who fail consequently to fully carry them out, and who joyfully hail any champion who even seems to justify their indifference.

But even among the better trained class of men, does not one often see a lamentable failure to grasp the essential ideas of surgical cleanliness?

There are hundreds of men today who apparently persuade themselves that mopping a 1 to 20 carbolic acid, or 1 to 2000 bi-chloride of mercury solution about a wound area constitutes using "every antiseptic precaution," as the phrase goes. There are also men who will use chemicals upon a septic patient but neglect to change infected bedding. There are men who will go to an operation with the points of their scissors, the locks and serrations of their hemostatic forceps, the eyes of their needles, choked with dried blood or worse material from the last operation. They never boil an instrument. Their conscience is satisfied with the carbolic acid in the instrument pan. Some men wash their hands before an operation no better than before dinner. When an instrument or a sponge drops to the floor they may rapidly rinse it in the

pan and use it at once. There are other men who have trained nurses, sterilized dressings and boiled instruments, but who, after they have washed for the operation, shake hands with a spectator, put a hand in a pocket, remove instruments from an old blood-stained case, help carry a table, handle dusty bottles, or use a handkerchief, and yet *say* they use every antiseptic precaution. Many men know better. What is lacking is careful self-training and what may be called an aseptic conscience. What is wanted is a realizing sense of the real difficulty in getting things clean and then keeping them so. Carbolic acid solutions as practical sterilizers are a delusion and a snare. They work slowly at best. Unless too strong for comfortable or safe handling they do little good, and they do enormous harm by quieting the conscience of the man who ought to spend more time cleaning his hands; yet how many times do we see them relied upon when they only cover dirt. Many textbooks, even the revised editions of standard works, are written from a carbolic acid standpoint. Antisepsis is a failure when it is superficial.

In a recent case of laparotomy, referred to by the author's permission, the stitches cut out and the wound opened, though it afterward united by granulation. The operator had been cleanly, but the fault was traced to a nurse who had handled the previously sterilized silk with infected fingers. In another case the paraphernalia were elaborate and the preparations minute. The chief assistant seized a falling ether bottle, old and very dirty, and without the slightest effort to cleanse the hand again, it was soon in the abdominal cavity. The patient died two days later of peritonitis, which may have been a coincidence.

A few days ago, in a hospital, a major operation was in progress. The lecturer had dilated upon the beauties of the antiseptic methods. The catgut ligatures proving defective, he called for silk. There was a scurrying of nurses and an ancient open box of silk was brought. A spectator with unwashed hands threw a card of silk into the instrument pan, from which a piece of silk was taken when scarcely wet and placed on one of the largest arteries in the body. A weak link breaks a strong chain.

In a hospital case of my own, requiring careful dissection about the face, an assistant, unknown to the operator, obtained an instrument which had been used a few minutes before in opening a suppurating bubo. In two days the wound area was an abscess under sterilized dressings.

Not long ago, in an emergency, the writer asked at a drug store for antiseptic gauze. The druggist instantly opened a beautifully decorated and labeled tin box, unrolled a quantity of gauze and offered it for inspection. He was, of course, told that while that might have been antiseptic gauze once, it was ruined as such by his handling; a proposition which failed completely to enter his mind. No doubt that identical roll of gauze will be retailed, and the writer fears that there are physicians who would buy it measured by the yard on his counter, and yet hardly realize that it was worthless as a clean dressing or packing. But why multiply instances to show that "antisepsis," when neutralized by some single mistake, is a failure? Which should be blamed, the system or the application?

The war about asepsis as opposed to antisepsis is a minor issue. The great fact remains that the principles of cleanliness, though adopted theoretically throughout the world, are really carried out very imperfectly by most nurses, most hospital internes, some general practitioners in town and country, even (must it be said?) by many otherwise most excellent and estimable surgeons.

This is not the place to bring forward the overwhelming evidence in favor of surgical cleanliness in saving life and promoting swift recovery from operations impossible without it. This work has been done again and again. Many of us see it daily.

Let no one be misled by the war of methods into suspecting the truth of principles. Let each of us train himself constantly to make his work clean. Only by long practice can this be well done.

In regard to the use of chemicals, it is known that in abdominal operations they are not necessary. In general surgery, including railroad and machinery accidents, better results can be obtained by the use of sublimate. Perfect asepsis, though

it should be aimed at, is almost impossible as a practical measure. The assistant of the moment is often untrained, and can neither be relied upon nor narrowly watched; nurses may be new to the work, derelict or incompetent; the wound is frequently infected before it is seen. The best results in general surgery are obtained with least trouble by combining the aseptic with chemical methods.

Further, let no man venture to criticize methods which he has never fairly tried; let him also bear in mind that his trial, though honest, may be superficial, and therefore faulty through his lack of patient personal training.

In conclusion, then, in answer to the question: When is antisepsis or asepsis a failure? one may say, never if real, always if imperfect.

There is no doubt that the great principle of cleanliness in surgery, whether obtained by soap, hot water, dry heat or chemicals, has come to stay, and the sooner all of us act thoroughly upon that principle, ignoring personal discussion, the better.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

Too Much Surgery.

A hecatomb of women survive to tell the story of innumerable operations that have been performed on their wombs. They are heroines—Scalpel's modification of Bisturie's operation has saved their lives—one week longer and they would have perished, but now they are useful members of society, all from the phenomenal skill of Dr. Volsella, the great gynecologist. God save the mark. Not one in a hundred of the operations performed on the uterus and its appendices is necessary. They are devised and perpetrated on willing victims, causing not a few deaths, invalidating many, and seldom doing good. In three-fourths of the cases treated by the gynecologist the local treatment is unnecessary. With bated

breath the patient will describe her imaginary suffering, what the doctors with "wise saws and modern instances," said, how he acted, and a lot of exaggerations, while in truth there was little aside from the aches and pains coincident to disturbed functions.

The practitioner is not altogether to blame; the patient will have the operation *nolens volens*. It is done to satisfy the morbid craving for some uterine treatment; the fashionable craze is yet on, and it will require time to modify it. The yearning of many women perhaps never will be satisfied until they are operated on.

Let it be fully understood that the writer does not condemn surgical methods when necessary, but we will, without fear, assert that nineteen out of twenty of the gynecological operations are unnecessary; many are criminal, because the operator knows they were uncalled for. Let us enumerate a few of these procedures that are, to a greater or less degree, passing into oblivion. The "bilateral" section of the os, the "antero-posterior" section; the almost countless cases of laceration of the neck, all to be sewed up—the use of the "murderous sponge tent," etc., all of which are dead or dying, except in rare cases. Many operations are performed by the desire of the patient; her condition is morbid, her nervous system disordered, some aches or pains in the pelvic region, some slight lesion, and the knife must be used; the gynecologist yields, she tells her friends she must be operated on, the doctor has given her that chance to live and become once more a useful woman. She is a heroine. In ninety-nine cases out of one hundred instances no operation is necessary or justifiable. I tried an experiment sometime since. I selected a number of uterine cases consecutively, not one of whom an operation upon was necessary, but I suggested to each that perhaps an operation would be required, or that it possibly would benefit them, and almost without exception they were willing, and in some cases, determined to have something radical done "at once, how soon will you operate?" And I may add that several have been operated on, but not by the writer. A year or two ago an eminent surgeon stated that he had never, or had his father, a large practitioner, met

a case that the laceration of the os was severe enough to require operative procedure. Now I regard this view as an error on the conservative side. There are many cases in which it is absolutely required; in one notable instance occurring in my own practice the woman had become insane, was from time to time placed in an asylum. She was radically cured by closing the lacerated margins of the os, and is now a useful and happy woman. It is to protest against these indiscriminate operations that I am prompted to write. Only a few days since a splendid woman, healthy and with few aches or pains, consulted me as to whether she should have an abdominal section performed; the only lesion was some slight deposits that were being absorbed, the remains of an old pelvic cellulitis. This woman was almost ready to submit, and yet she asked, "Why should I have this done? I am not suffering to any great extent; I am in better health than for years." This is an example. The suggestion was infamous. While the woman was intelligent, she was almost ready to have this formidable procedure take place; perhaps she would become a heroine—the proud thought that she, too, had had one of these great capital operations performed on herself.

The abdominal surgeon should devote himself exclusively to that work and should be patronized, assisted and sustained by professional men. Above all, he should be honest, and if it be possible to have relief afforded by other means he should so advise, and it should be done. At last, if the operation is required beyond all question, let it be performed, not before. Now, then, what shall we do to relieve these patients before the knife is resorted to? Treat the moral as well as physical condition. Resort to every known method before you mutilate, injure or perhaps destroy your patient; adopt all the various treatments, including electricity and placebos, change of the mode of living, if it be possible, and try the various tonics that direct their action principally to the uterine system, and there are a number of excellent ones. Among others, the old domestic remedies, dioscorea and michella repens are to be recommended. I have no hesitation at this time in recommending the compound entitled Dioviurnia. This use-

ful combination stands first of all that we now have, and like all tonics, no matter for what object they are exhibited, it will take time, and time is often the best adjuvant for any treatment. A little less surgery, a little more conservatism, and we will have better results and fewer deaths.—*Dr. M. Yarnall, in Medical Review.*

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

On Quinine Amaurosis.

This paper is a reprint of a communication made by the author to the medical section of the Society for experimental Sciences at Charkov. The object of the investigation was to study the effect of overdoses of quinine in perfectly healthy people. For this purpose Barabasheff obtained the co-operation of some of his colleagues, who allowed themselves to be experimented on. He also experimented on rabbits and dogs.

Of six individuals, who took from 40 to 60 grains of quinine, three presented very definite symptoms; the remaining three were unaffected, but it was considered too risky to administer larger doses to these, as the symptoms in two of the cases in which poisoning took place, were sufficiently alarming. The salt used was the muriate of quinine.

The value of these experiments consists in the certainty that all the observed changes were produced purely by quinine, and were not due to the coexistence of any disease.

Barabasheff divides the symptoms of poisoning, as he met with them, into two categories, the first of which are already known, while the second have not previously been observed, and therefore call for confirmation.

To the first category belong the following symptoms:

1. Acute gastritis, resulting from the local action of large doses of quinine on the gastric mucous membrane.
2. Pallor of the face and conjunctiva, giddiness, sometimes fainting, drowsiness, ringing in the ears, ischemia of the retina.

3. Marked contraction of the retinal vessels, and pallor of the disc.

4. Diminution of visual acuity, sometimes amaurosis.

5. Concentric restriction of the field of vision.

The symptoms referred to in the second category are :

1. Temporary increase of visual acuity (lasting some hours.)

2. Contraction of pupil, lasting only a short time, and followed by moderate dilatation.

3. At first quickening and afterward slowing of the pulse.

4. Increase of sensibility in the skin, occurring after some time, and followed still later by a diminution of sensibility.

5. Slight increase of temperature ($0.2 - 0.4$ C.)= 0.4 to 1° F.

This is less marked the larger the dose taken. The author explains that in order to observe the changes which he has referred to in the second category, it is necessary to examine the individual soon after the quinine has been taken.

Complete amaurosis only occurred in one of his cases, and lasted only a very short time. Its character and the fact that it was accompanied by palpitation of the heart, were sufficient evidence that it was due to an abnormal state of the vascular system. Restriction of the field of vision occurred in two cases; it preceded the complete amaurosis in the one case, and in the other it varied greatly from time to time, sometimes increasing, sometimes diminishing, but leaving central vision normal. In this case, too, there were attacks of palpitation. The author did not observe any diminution of corneal sensibility, any red spot at the macula, or any color-blindness, all of which conditions have been described by others in cases of quinine poisoning. Marked ischemia of the retina occurred in all cases, and in two the pallor of the disc completely resembled that found in optic atrophy.

The symptoms caused by overdoses of quinine are therefore, in all probability, according to Barabasheff, due to poisoning of the vaso-motor centers, tending to excessive constriction of the peripheral vessels. The continuance of the vascular constriction he considers, with Horner, to be due to local changes which are set up (*endovasculitis ex ischemia*).—*Barabasheff*, (*Charkov*.) in *Vestnik Ophthalmol.*, Jan.—Feb., 1891.

Development of Cataract.*

Mr. W. A. Brailey read this paper, in which he stated that, excluding the congenital and zonular cataract, and also those secondary to local or general diseases—such as glaucoma, iritis, or diabetes—seven per cent. of the total cases seen in private practice were found to have some degree of opacity of the lens; but in only one, on the average, out of these seven was the cataract sufficiently advanced to justify operation. From the records of all his patients with immature cataract that had been re-examined within the last two years, it was found that 45 per cent. of them remained absolutely unchanged for the worse; the interval between examination and re-examination varying between three months and eight years.

Four other cases were slightly better as regards vision, thus making 58 per cent. in which the sight had not deteriorated. Twenty-three per cent. had become decidedly worse, inclusive of four cases (13 per cent.) in which the cataract was sufficiently advanced to justify removal under ordinary circumstances. The slight improvement of vision in 13 per cent. of the cases was attributed to the hygienic measures adopted with regard to the use of the eyes. It was observed that the cataracts which had remained stationary were mainly of the cortical variety; whereas those getting slowly and steadily worse were chiefly nuclear. Other differences existed between the two groups; the cortical variety was attended in about two-thirds of the cases, both at its onset and for long afterward, by irritative symptoms, such as conjunctivitis, photophobia, lachrymation, slight redness of the optic discs, and by aching in the eyes and head, especially on use of the eyes. There was often also increase in the refraction, and augmentation of the power of accommodation, with occasionally slight spasm of accommodation. Finally it was suggested that while the senile nuclear cataract was a degenerative change, the cortical variety often exhibited the characters of an inflammation.

Oph. Rev.

THE Dios Chemical Company is distributing chromo-lithographic cards of the uterus and appendages. Their new hypnotic, Neurosine, is meeting with much favor.

* Oph. Soc. of United Kingdom.

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Memphis, Tenn.

CREMATION.—Hundreds of thousands of lives lost by diseases directly attributed to inhumation, appeal to the sanitarian for some method of disposing of the dead, which will remove the constantly increasing menace to the lives of generations which are to come, from the practice of burial, and he offers cremation—and hundreds of thousands of the living oppose this sanitary measure, clinging to the practice of their forefathers and allowing the halo of sentiment which surrounds the ceremony of the burial of the dead, to blind their minds to reason, to make them heedless of their own danger, and regardless of the legacy of disease which they are treasuring up for their posterity. The physicians, with marvelous indifference, heeds the appeal for relief but little more than he does the cry of opposition. He knows as well that cremation is the only sanitary method of disposal of the dead, that it is pregnant with good to the world; and that its general adoption would be open to no objection, as he does that the sentimental grounds upon which alone it is opposed, are void of all reason. The physician is the world's sanitary educator and adviser; to him is intrusted a people's health, and he is as much bound to enlighten the public mind on matters of general sanitation as he is to respond to the call of a sufferer.

The subject of cremation is of vast importance, and a more general dissemination of knowledge concerning it, will lead

to an appreciation of its merits, and an undermining of the groundless sentiment against it. The physician must impart the knowledge; the public will not be slow to accept it.

HEALTH OF MEMPHIS.—The excellent supply of pure artesian water is a boon to Memphis, the importance of which can hardly be overestimated; and it is gratifying to know that where question of its purity has arisen, the cause has been in the house-connections of the water pipes. For specimens of the water from the wells, tunnel or underground reservoir, and the street mains, have been found pure in every instance. The pure water supply contributes largely to the healthfulness of the city. The house-to-house inspection, the improvement in the garbage system, and other sanitary measures inaugurated by the Health Department are being vigorously pushed, and we may feel assured that nothing will be left undone to improve the healthfulness of the city.

A fact which we have heretofore called attention to, however, should not be overlooked by the city officials: Suburbs are growing more rapidly than the city proper, and no amount of work done within the limits can counterbalance the violation of all rules of hygiene beyond the borders. This will remain a menace to the public health unless the powers of the Board of Health are extended.

THE SEVENTEENTH ANNUAL REPORT of the Superintendent of the Cincinnati Sanitarium is at hand. At the beginning of the present hospital year, there were sixty-three patients—thirty-one male and thirty-two female — “on hand,” in the sanitarium. One hundred and eighty-three — one hundred and twenty-three men and sixty women—were admitted since, within the year. Two hundred and forty-six patients, therefore, received more or less treatment in the sanitarium since last report. Of this whole number of patients, eighty-one were discharged as having “recovered.” Forty-seven as having “improved.” Forty-one as having “not improved,” and ten as having “died.” Thirty-three men and thirty-two women remain in the hospital as patients, at the date of this report. For nearly one half the year the demand for hospital accom-

modation was greater than could be supplied. The number of patients refused indeed (had they all been admitted) would have increased the "daily average" figures very considerable. Tables are appended giving full particulars of the work done. Physicians should provide themselves with a copy.

THE Committee appointed by the American Medical Association to effect a permanent organization of the Inter-Continental American Medical Congress, met at the "Arlington," Washington, May 7, 1891. The following officers were elected: Charles A. L. Reed, M.D., Cincinnati, Ohio, Chairman; J. W. Carhart, M.D., Lampasas, Texas, Secretary; I. N. Love, M.D., St. Louis, Mo., Treasurer. On motion, the officers were appointed a special Committee to draft a Constitution, and report the same at an adjourned meeting of the General Committee, to be held at St. Louis, Mo., Wednesday, October 14, 1891, when the time and place of meeting of the Congress will be decided, and permanent officers be elected. Charles A. L. Reed, M.D., Chairman, J. W. Carhart, M.D., Secretary.

THE Memphis Sanitarium, erected by Drs. Crofford, Rogers and Henning, was formally opened Friday, June 19. All of Friday and Saturday visitors inspected the most complete private hospital building in the South. On Saturday night a banquet was given by the generous proprietors at the Tennessee Club; toasts were drunk and an enjoyable time was had. The Sanitarium has been in operation since February and is well patronized.

THE OPHTHALMIC RECORD.—With the initial number of this journal, Dr. G. C. Savage enters the editorial arena, and lays claim to liberal patronage by the work which has and will be done. A Department of Laryngology, Rhinology, and Otolology, will be edited by Dr. G. H. Price. It will be a monthly journal, published in Nashville, Tenn., at \$2.00 per year. We welcome it, and wish it success.

THE Twenty-Seventh Annual Meeting of the American Ophthalmological Society will be held this year on Wednesday and Thursday, the 23d and 24th of September, at the Arlington House, Washington, D. C. This annual meeting is in connection with the Second Congress of American Physicians and Surgeons, and takes the place of the usual July meeting.

IN June issue of this JOURNAL, page 113, 29th line, "suppuration" should have been supination.

THE prospectus of the Memphis Hospital Medical College is at hand. Physicians intending to send students to college should apply to the Dean, Dr. F. L. Sim, 126 Hernando street, before making final decision. The Memphis school has better clinical and anatomical advantages than any other college.

DRS. Jo. H. Linsley and Wm. C. Bailey have prepared a set of clinical charts for taking data of tuberculous patients. The charts are bound in books, each book keeping the record of one case eight weeks. Price 20 cents each, \$2 per dozen, or \$15 per 100.

THE opening address of Dr. John Y. Murray, President Tri-State Medical Society of Mississippi, Tennessee and Arkansas, was unavoidably omitted from the printed transactions, the committee being unable to secure same.

MARRIED.—On Thursday, June 18, 1891, at Ebenezer, Miss., Dr. A. B. Holder of this city to Miss Sally H. Burwell, at home of the bride. The JOURNAL extends its heartfelt congratulations.

READING NOTICES.

Dr. Wm. F. Waugh, M.D., says: My records show that during the grippe period I attended twenty-three cases of lobar pneumonia, all of which recovered. Ten of these were hospital cases; the remainder occurred in my private practice.

Robert A. Reed, M.D., Editor *Massachusetts Medical Journal* for October, says: The family physician meets with so many cases of functional uterine troubles, cases which will not submit to physical examination, that a reliable remedy becomes a boon not only to the patient but to himself. Dysmenorrhea is one of the most important of these complaints, and often severely tests the physician's resources. Judging from the reports from physicians, numbering thousands, both in this country and Europe, as well as our own experience, Dr. Hayden, in his Viburnum Compound, has prepared a powerful and reliable remedy, which is not only of great value in the cases alluded to, but also to a host of other ills.

Deering J. Roberts, M.D., of Nashville, writes to Messrs. Renz & Henry as follows: I have been using your Three Chlorides Elixir quite frequently. The more I use the better

I am pleased with it. It is a most excellent tonic, combining alterative properties. In chronic syphilis, when the system has been pulled down with the iodides, it tones up admirably. Have found it a most excellent tonic in convalescence after protracted malarial and other febrile conditions.

Dr. Chas. C. Browning of the New York City Asylum for the Insane, Blackwell's Island, writes: "In reply to the enquiry regarding the use of Chloralamid in my practice, permit me to say that results have been satisfactory, and I have continued to use it ever since I became acquainted with this new hypnotic."

LACTO-CEREAL FOOD.—The enterprising and progressive firm of Reed & Carnrick are again in the field with a new and valued preparation called Lacto-Cereal food, designed for invalids, dyspeptics, convalescents, the aged, and all who suffer from impaired nutrition or retrograde tissue. This food, besides being entirely palatable, contains twenty-one per cent. of albuminoids, the amount required to attain and sustain the highest bodily vigor, as has been lately demonstrated by Dr. A. H. Church in his scientific experiments on English troops. Lacto-Cereal Food is the only food containing desiccated fruit, which acts favorably on the *liver* and *bowels*, keeping them in a healthy, normal condition. It is neutral in its effects on the bowels, being neither laxative nor constipating.

The starch in the wheat and barley has been dextrinized so as to render it easily digestible. In general character and constituents this would seem to be an *ideal food*, and we predict for it the same popularity and pronounced success which have attended all preparations emanating from the house of Reed & Carnrick.—*Epitome*.

COLDEN'S Liquid Beef Tonic is an excellent preparation for convalescents from continued fevers prevalent in the summer months.

MR. E. A. MORRISON, our enterprising pharmacist, is now more centrally located at 224 Second street, near Union. He has only the best of pharmaceuticals and carries a full line of rare drugs and preparations. Physicians from the country unable to obtain them elsewhere, *can rely* on Morrison.

The uncertain strength of Coca makes this drug very unreliable, unless a preparation is used, which we *know* to be made from a good leaf. "Robinson's Wine Coca" is prepared by percolating *assayed* coca leaves with Malaga wine, and has always been found entirely satisfactory.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., AUGUST, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY
B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

PARALYSIS OF THE MUSCULO-SPIRAL NERVE

Due to Traumatism.

B. F. TURNER, M.D., MEMPHIS, TENN.

Dr. P—, a fellow practitioner, came into my office a few days ago and asked me to look at his arm, which he complained was paralyzed. He had retired to rest late a few nights previously in his usual good health, and awoke the next morning with his right hand quite useless, and it had remained useless ever since.

Upon examining the affected member, I found all the muscles of the shoulder and upper arm unimpaired in function. All the muscles of the forearm, wrist and hand appeared to be totally disabled, together with a considerable degree of impairment of sensation over the radial side of the back of the hand and wrist.

Upon asking the doctor to grasp my hand with the affected hand, however, I noticed that the short flexors of the thumb worked quite well; then, upon forcibly extending his hand with my own, and asking him to try again, I found that he had a fair degree of control over all of the long flexors of the fingers. Upon half-flexing the forearm upon the arm, and asking him to pull against me, there was a conspicuous absence

of the cord-like prominence beneath the skin, which the action of the supinator longus always gives in the normal execution of this action. With a fair use, therefore, of all the flexors of the arm and forearm, except the supinator longus, which alone of all the flexors is not supplied by either the median or ulnar nerves, and with complete loss of power in all the extensors of the hand, which together with the supinator longus are supplied by the musculo-spiral or its branches, I saw that we had to do with a lesion of this nerve; and, further, that since the action of the triceps and deltoid muscles remained unimpaired, that lesion must be somewhere below the point where the branches to those muscles are given off from the musculo-spiral.

Upon testing with the Faradic current, flexors and extensors alike responded readily, thus precluding the existence of degenerative changes in the nerves distributed to the disabled parts.

The lesion was therefore small in extent, though quite widespread in effect.

Upon inquiring more particularly I found that upon the night when the paralysis had been developed, the doctor had slept unusually soundly with his head pillowed upon his arm. Here then was the explanation of the whole matter. It will be remembered that in leaving the brachial plexus, the musculo-spiral nerve pursues a sinuous course around the humerus, to which it is closely adherent; and from this circumstance it follows that this nerve is peculiarly liable to injury from a great variety of accidents, as compression, dislocation at the shoulder joint, fracture of the humerus, rupture of the triceps, as sometimes happens in striking a fearful blow, etc.

In the case in question it was compression, the nerve being pressed between the head and humerus. Indeed, to this cause the majority of cases of this not rare accident is due.

The prognosis in these cases is good, the injured member usually completely recovering after a longer or shorter period of disuse, according to the extent of the original injury.

The gentleman above cited is already recovering the use of his hand.

As to treatment the indications are simple :

Passive motion, massage, and electricity, applied regularly and systematically to the affected part, will keep the muscles in a condition of good nutrition and prevent contracture until the nerve recovers itself.

One of the chief points of interest attaching to this class of affections of peripheral nerves is its differentiation, in diagnosis, from lesions of centric origin, which will usually involve both flexors and extensors; and lesions due to toxic influences which affect the extensors alone, but are always bilateral and gradual in development.

Careful attention to the history of the case generally affords a clue to this sort of trouble. I wish to call attention to a point in diagnosis here which, if overlooked, may allow very erroneous conclusions, namely, the investigation of the control over the flexors of the fingers. As anyone may demonstrate upon his own hand, in order that the long flexors of the fingers may work fully, the hand involuntarily takes the strongly extended position, and just in proportion as the hand is flexed upon the wrist, the action of the long flexors is less efficient or quite powerless, even in the healthy hand.

The reason of this is that the tendons of the long flexors run over the carpal bones and under the anterior annular ligament as in a pulley when the hand is sharply extended, so that all of their contractile power is then utilized at the greatest possible advantage; and conversely, when the hand is sharply flexed at the wrist, this pulley mechanism no longer obtains, the tendons are like slack ropes, their utmost power of contraction is wasted in taking up this slack, their function is nearly or quite lost.

Hence is seen the compensatory action between the flexors and the extensors; and in diagnosis one must remember that the extensors once disabled from any cause, the hand drops at the wrist into the strongly flexed position, and the long flexors are thereby rendered inactive, although they may be in an entirely healthy condition; and in order to assure ourselves of their real condition, we must artificially supply the power of the disabled extensors, that is to say, extend the hand sharply at the wrist, and then ask the patient to flex the fingers. A power of control over the long flexors may

then be demonstrated which superficially may appear to be entirely lacking, and of the possession of which the patient himself may be entirely ignorant.

AN EXPERIMENTAL AND CLINICAL STUDY OF ERGOT.

In a series of carefully and elaborately conducted experiments at the Biological Laboratory of Johns Hopkins University on the physiological effects of ergot, Dr. John C. Hemmeter has arrived at a solution of some of the vexed and antagonistic theories of the action of this drug. He employed various preparations of ergot, and states: "I concluded to resort to the fluid extract of ergot, but found this as obtained from various sources very variable, both in physical properties and therapeutic efficacy, some specimens having a very offensive odor. In two German preparations of ergotine and one liquid ergotine prepared in Basle, Switzerland, and specially recommended by the manufacturer for hypodermic use, a very unpleasant fetid odor, reminding one of decomposed organic matter, was noticeable, and the last named used hypodermically proved very irritating, causing an abscess in a patient suffering from goitre. My attention was at last called to a form of liquid ergotine made in Baltimore by Sharp & Dohme, which gave evidences of being a standard preparation, both in clinical and experimental application. I have had some of this ergotole in my possession for nearly ten months. It has deposited no sediment, has a fresh and pure odor, and is very effective. This ergotine solution, which is the most concentrated liquid preparation of ergot that can be obtained, has since become known under the name of ergotole. In the experiments to be described this form of ergot was used."

He then goes on to describe his experiments made upon rabbits. The objects of these experiments were:

1. To determine whether the contractions of the uterus by ergot is of centric or peripheral origin.
2. Whether the peristalsis of the intestine is increased or diminished by ergot—if increased, whether this be due to a centric or peripheral action of ergot.
3. Whether the cause of the contraction of the blood vessels in the omentum is central or peripheral.

4. Whether ergot produces a rise or fall of blood pressure. Whatever change occurs, is it due to an action on the heart and arteries or on the spinal cord?

5. The action of ergot on temperature.

The experiments are then described at length. Ergotole is injected in quantities varying from 0.25 C. C. to 1 C. C., and its active physiological effect being demonstrated in from three to five minutes, the spinal cord is destroyed by means of a white hot wire, after which injections of even 2 C. C. are productive of no results, while electrical stimulation will still produce energetic uterine contractions.

(See *Phila. Med. News*, Jan. 31, 1891, pp. 133 to 139).

From these experiments he deduces "that ergot in producing contractions of the uterus acts primarily and essentially upon the lumbar cord, *i. e.*, its action in causing peristalsis of the uterus is centric, not peripheral."

His experiments with ergotole to establish whether the drug causes intestinal peristalsis by local action or by exerting an influence upon the spinal cord, he formulates by stating that "It is justifiable, therefore, to conclude that ergot, in producing intestinal peristalsis, acts directly on the cord, and only reflexly upon the intestines, its action in this case, too, being centric, not peripheral."

From his experiments with ergotole upon the contractions of the arterioles, he concludes, "that ergot produces constriction of the arterioles and capillaries in the omentum and ear of rabbits, and in the frog's web, as long as the cord and the vagi are intact. These being destroyed, constriction is no longer produced by the drug; its action in this case is centric, not peripheral."

He proceeds now to employ ergotole in the investigation of its effect upon the blood pressure, and makes the following deductions :

1. Ergot reduces the number of pulse beats per minute.

2. In the isolated frog's heart it reduces the force of the contractions.

3. It exerts a local poisonous influence on the heart of the batrachian as well as on that of the mammal when injected into the jugular vein.

4. Its main action, however, is exercised through the influence of the central nervous system.

5. It raises arterial pressure when injected into the jugular vein of mammals. The rise is preceded by a primary depression due to the local action on the heart. It is impossible at present to decide whether this local action is due to an influence on the heart-muscle, or on the cardiac ganglia.

Further experiments demonstrated that ergot causes a fall in temperature.

(See *Phil. Med. News*, Feb. 7, 1891, pp. 152, 158).

The author next proceeds to a clinical study of ergot, and states that "the therapeutic effects of few drugs correspond so closely with their physiological action as do those of ergot."

Upon the power of ergotole to constrict the arterioles and to cause arterial and capillary anemia depends its application in a large number of disease conditions. It is of value in all hemorrhages. It has been successfully used in hemoptysis, hematomesis, epistaxis, hemorrhage from the gums, renal, hemorrhoidal and vesical hemorrhages; in the bleeding caused by carcinoma; in the hemorrhage dependent upon a dyscrasis, as purpura hemorrhagica; and in menorrhagia and leucorrhea, which are produced by endometrial congestion. Ergotole is found of value in the colliquative sweating due to relaxation of cutaneous capillaries; in enlargement of the spleen, and in vascular goitre. It has been used in the successful treatment of aneurisms of various arteries.

Ergotole has also been advantageously used in congestive headaches and in impaired vision from congestion of the retina incident to dilated or hypertrophied heart. Intestinal catarrh with diarrhea, due to congestion of the intestinal mucous membrane, is a special indication for the use of ergotole. In cases of dysentery, which proved rebellious to treatment with astringents, bismuth, opiates, and even flushing of the large intestine, recovery occurred when the drug was persistently used. Its action was more immediate and more lasting when the ergotole was injected through a long rectal tube, than when given by the mouth or hypodermically. It has also been successfully used in chronic diarrhea.

Ergotole has also a place in the therapy of certain affections of the heart, as in aortic insufficiency and so-called idiopathic dilatation of the heart; also in cases of arterio-sclerosis.

The writer has no new applications for the drug in labor, but states its applicability under the rules collated by Kohler and given in most standard works.

Schatz in his paper on the use of ergot contributed to the third German Gynecological Congress at Freiburg, concludes that the contractions of the uterus, produced by ergot, do not differ from the normal. That the action of ergot begins fifteen minutes after its administration by the mouth and is greatest in thirty minutes, hence it should not be given oftener than once in the hour. Small doses should be given to avoid tetanic contractions, which are an evidence of toxic action.

In gynecology ergotole has been used in removing uterine fibroids by strangulating their vascular supply and by causing uterine contractions. It has been of benefit in cervicitis, in gonorrhea, in paralysis of the bladder from distention, or in that due to cerebral or spinal lesion. The writer has used ergotole with great success in cases of pneumonia and bronchitis. A chart is given with the record of the pulse rate and temperature, showing both to decline rapidly under the use of xv ergotole given every 3 hours. Cases are also alluded to, treated by Dr. N. S. Davis, who treated them successfully with this drug, sometimes in connection with digitalis.

We believe that ergotole exercises a very decided effect upon the pulmonary vessels.

Transudation has been proved by a very large number of observers, to depend upon the permeability and elastic distensibility of the blood vessels.

From these facts we cannot fail to realize what a powerful agent this drug is in checking inflammatory exudation, as clinical experience has undoubtedly proven it to be in the first stage of pneumonia. If transudation depends upon the permeability and the elastic distensibility of the vessels, we know that ergotole, by constricting these, can reduce peri-vascular engorgement.

If transudation is associated with increased heart's action, we know that ergotole reduces the number of heart beats.

If the beginning of pneumonia exudation is associated with hurried breathing, we know that ergotole reduces the number of respirations.

If transudation is connected with fever, we know that ergotole reduces temperature.

If the fever in inflammatory exudations lowers blood pressure, we know that ergotole raises it.

All these physiological effects directly counteract the main features of the pathological process, and check further transudation, while the lymphatics carry away the exudation that has already occurred.

Ergotole may be advantageously used in certain cases of epilepsy, cases of grand mal, who complain of hemicrania during the intervals of rest. Here an ophthalmoscopic comparison of the fundi oculorum should be made, and if congestion is evident in one or both, ergotole should be tried. Among the symptoms that should direct attention to possible cerebral congestion are contracted pupil, hemiopia and diplopia, supra-orbital pain and narrowing of the field of vision, and aggravation of the symptoms by the recumbent posture and acts involving deep inspiration, as blowing, sneezing, etc.

Ergotole is found efficacious in cases of nervous disease when the symptoms indicate hyperemia and congestion of the spinal or cranial meninges, or an acute inflammation of the cord substance.

In the treatment of the psychoses, in which ophthalmoscopic examination justifies us in diagnosing intra-cranial congestion, and, perhaps, inflammation, ergotole has proved to be a valuable adjunct to other means of treatment.

Chloralamid.

The unique value of Chloralamid has already been established by the researches of a great number of authors, but every fresh contribution to its literature is welcome as tending to broaden and fix the base upon which its employment as a hypnotic is founded. Quite recently an exhaustive investigation of the physiological and clinical properties of the compound has been made by Dr. John Gordon, of the Aberdeen University. The author says: "In a large number of cases

of insomnia where chloralamid was employed as a hypnotic the result was distinctly satisfactory—sleep was induced within a short time after exhibition, was pleasant and lasted from five to eight hours, and with few exceptions the patient awoke much refreshed and without headache, mental confusion, depression or drowsiness . . . In addition to the direct hypnotic action of the drug, it was frequently observed that the patient being once put in the way of sleep, there followed a series of sleepful nights. . . . In none of the cases in which the drug was tried was there observed any disturbance of the gastro-intestinal functions. In no case was vomiting observed. This non-disturbance is of much importance in the selection of a hypnotic.

“Chloralamid contrasts favorably with sulphonal as to deferred action. It was frequently noticed that following a dose of sulphonal, the hypnotic action did not take place for a number of hours, so that sleep was projected into the following day, whereas with chloralamid, sleep, if it supervened at all, came quickly, and passed off within six or eight hours.”

The author describes (*Brit. Med. Journ.*) some nine cases of sleeplessness associated with senility, heart affections, neurasthenia, phthisis, chronic bronchitis, hysteria and locomotor ataxia, in which very satisfactory results were obtained.

Thus in a patient of 74, suffering from mitral regurgitation, there was no pain but extreme nervousness associated with insomnia of about a week's duration. A dose of 30 grains was followed in about two hours by sleep which lasted for six hours. On the following night the hypnotic was omitted and sleeplessness recurred. On the next night chloralamid was again resorted to in the same dose and produced the same effect as the previous time.

In another case the patient (84), in whom cardiac dilation and general anasarca were accompanied by insomnia, at first received 20 grain doses of sulphonal; this produced feelings of intoxication followed by one or two hours of sleep; 30 grains of bromide of ammonium had no effect, and 25 minims of nepenthe induced a short uneasy sleep, with dry tongue and headache in the morning. 25 grains of chloralamid produced sleep in half an hour, which lasted from 12 P.M. to 5

A.M. There was no confusion nor headache on waking, but a marked feeling of refreshment. Powders were given continuously without ill effects and continued to produce the same satisfactory results. The dose of 25 to 40 grains was found most suitable, dissolved in water with a few drops of hydrochloric acid, or in some syrup. Summing up his results, the author says:

"The hypnotic effect followed usually within half an hour after exhibition.

"The sleep induced was tranquil, pleasant and natural, and the awakening free from confusion or depression.

"There was no deferred action.

"No craving for the drug was noticed.

"The point of tolerance was not readily reached.

"The doses found most reliable were from 2 to 3 grammes."

Notes on New Remedies.

DEPARTMENT OF
GENERAL SURGERY.
CONDUCTED BY
W. B. ROGERS, M. D.

Relapse of Hernia after Various Operations for Radical Cure.

Since Bull has had a more extensive experience with the radical cure of hernia than any other surgeon of this country, his utterances upon this subject bear great weight. During the past three years, aided by his assistant, Dr. S. E. Milliken, (*N. Y. Med. Journ.*, vol. liii, No. 22), he has carefully examined the histories of patients applying to the Hospital for Ruptured and Crippled in the hope of furnishing some statistical evidence of the value of different methods of radical cure of hernia. The tabulation made of relapsed cases numbers 119. In 73 cases the method of operation was definitely ascertained.

The average age in all the methods was about the same—from thirty-eight to forty-four years—showing that the extremes of life generally have been avoided. The duration of treatment, practically wound healing, in Czerny's

method, where the pillars of the external ring and the integuments are carefully sutured, is almost as great as in the open method. This is an argument in favor of allowing the wound to granulate. It is perfectly noteworthy that relapses occurred as late as two years and six months, and three years and four months, and that, on an average, no method shows immunity from recurrence for a longer period than fifteen months. This warrants the statement that future evidence as to the value of different methods must cover an experience of more than three years, and patients who have been without a recurrence for a year have no reason to expect to remain so permanently.

In one table eight cases are given, presumably operated on for radical cure, since the herniæ were reducible, and the operations were performed in the last five years. Relapse ensued after an average period of twenty-four weeks.

The next table gives twenty cases of irreducible strangulated hernia subjected to operation within eight years, without any data as to method. A radical cure may or may not have been attempted. Relapse occurred, on an average, in eighteen months.

These cases certainly demonstrate that many methods are defective and likely to prove disappointing if observed for a sufficient length of time.

Since ten years have elapsed since the modern operations have been in vogue, there should be patients who have been more than five years without relapse. Some such patients could naturally be expected to appear at hospitals; no such records are present.

In the hospital books are recorded 46 patients who have been subjected to radical operations, and who present no sign of relapse, and who have been furnished with trusses; of these, only 5 have been under observation for three years, 8 for less than two years, and 32 for less than one year.

In a series of 136 radical cure operations reported by the author a year ago, there were only 4 cases that had been over four years without recurrence.

Eighteen cases are tabulated which were operated on for irreducible strangulated hernia, and in which no attempt at radical cure was made. This latter fact was ascertained from

the date of operation (prior to the introduction of modern methods), or was known from the statement of the operator. The patients averaged 45 years. The period at which the relapse occurred varied from one month to 23 years, and was on an average 5 years. It is noteworthy that of 15 of these cases all wore trusses from the time of operation.

The author is not prepared to offer any statistical data bearing on the question of trusses preventing relapse or prolonging a cure. He states in general that the largest and most voluminous protrusions were met with in patients who had worn no truss; and furthermore, he had never seen any evidence of damage to structure by the pressure of the truss. In his own practice he always has his patients fitted with a truss immediately after the wound has healed, and directs that the pressure shall be very slight—that is, shall merely support the parts. Much that has been said against trusses can be laid to the score of the operation, and the condition that the parts are left in by it rather than to the truss. If suppuration is prolonged in the wound, and it is compelled to heal by granulation, a cicatrix of less vitality and less elasticity than the normal skin and subcutaneous fat is left. This structure is not tolerant of pressure. A primary union which restores the parts as nearly as possible to their normal condition will not be unfavorably affected by the truss. On the other hand, in a wound with much cicatricial tissue there is a natural tendency to softening and yielding, and this tendency should be hastened by the pressure of the truss without and the viscera within.

In cases treated by the open method the orifice of the relapsed hernia is not unlike that of ventral herniæ—that is, an opening in the wall without any canal, so that the hernia protrudes directly forward. This condition makes greater difficulty in the adaptation of a truss, which is further enhanced by the thinness of the yielding cicatrix. Although at first the cicatrix of the open operation can be recognized by its depressed situation, and firm, contractile, tense character, at a later period it begins to yield in places or all along its line, and ultimately presents the features just mentioned.

Although these patients are not cured, the majority are

certainly improved. They find much satisfaction in the fact that the protrusions are not quite so large as before operation; they experience increased comfort and security in the wearing of a truss. The author states that the figures given do not afford any valuable evidence as to the comparative reliability of different methods, but only emphasize the lack of promise to effect a cure. He believes that it is still wise to continue to strive for better methods. He advises that the term cure should be dropped, and the value of given procedures should be estimated by the relative proportion of relapses. That plan will be judged best which shows the smallest number of relapses in the course of the longest period of observation; such period should be at least five years. He further believes that all procedures should be so devised as to insure prompt healing of the wound, and that the support of a truss should be insisted on from the time the patient leaves his bed.

The Results of Excision of the Syphilitic Chancre.

A paper by Jullien (*L'Union Medicale*, March 5, 1891,) sets forth his experience and views in regard to the excision of the chancre, which he has had occasion to do eighteen times in ten years.

In speaking of the technique of the operation, he says that it should be done "surgically," with just as much care as would be exercised in the removal of a cancer. He elevates the chancre with a tenaculum and cuts beneath it with a bistoury, in preference to the scissors, and by palpation of the borders of the wound makes sure that the whole of the indurated area has been taken away. He closes the wound with sutures, and dresses it with an antiseptic. For anesthesia he employs cocaine either topically or by injection.

In giving the results of his cases, he excludes three of them for the reason that they were lost sight of shortly after the excision was done, reducing the number in which the effect could be watched to fifteen. In the first of these the chancre was excised nineteen days after its appearance. After more than a year's observation of this patient no constitutional manifestations were noted, and he married later and became the father of healthy children. In the second instance the sore

had existed twenty-eight days when removed; no eruption appeared, nor any other symptom except a suspicious enlargement of the tonsils, which developed at the end of 103 days. This patient also married, and is the father of perfectly healthy children. In the third case, induration developed in the cicatrix of the excision, but up to the eighth month no cutaneous manifestation made its appearance. In the fourth the sore was excised five days after it was first noticed. About the twenty-ninth day four or five red spots were seen on the skin, but these were not considered as certainly specific. In the seventeenth month this patient contracted a new infection, and several weeks later had marked roseola and ganglionic enlargements. Jullien thinks that the excision of the first chancre rendered that infection transitory.

Six of the remaining eleven patients were benefited by the excision to the extent that the disease was attenuated to a considerable extent, the secondary manifestations having been very slight. In the other five, the excision had no effect whatever upon the course of the disease.

Jullien concludes that the excision of the initial sclerosis is not always a useless operation, and that it is legitimate to propose it when the chancre has existed only a few days, and when the ganglia are free from all specific influence. He insists that with the sore a large zone around its circumference should be removed, and that even if the loss of substance be great it never causes the patient as much anxiety as does the smallest chancre in the course of development. Cases which are not suited to the operation are those in which, owing to the seat of the lesion, there would result a deformity or an embarrassment of function.

He believes that the doctrine, according to which, the chancre having been recognized, the physician has only to fold his arms and await the course of infection and the general contamination of the system, has had its day, and that, the disease once established, treatment ought to be adopted to prevent or to combat it at least; that excision is the most complete means which we have at hand, and is adapted to a very small number of well-chosen cases early met with.—
Univ. Med. Mag.

Rupture of the Gall-bladder.

Lane (*Lancet*, May 16, 1891,) reports a case which illustrates the influence which bile exerts upon the peritoneum when retained in a free state in a considerable quantity in the peritoneal cavity.

The patient, a lad eighteen years old, was admitted into Guy's Hospital five weeks after having a violent blow in the upper part of the abdomen. For a day or two after the injury he suffered great pain, and his abdomen soon began to increase in size. This distension became so great as to finally render him unable to take food. The discomfort was so great that he could not lie on his back. Several times he vomited a dark-brown liquid. When admitted he appeared moribund. An incision was made below the umbilicus, and about three gallons of fluid, very deeply stained with bile, was removed. No irregularity or adhesion could be felt along the margin of the liver. The gall-bladder was empty. About a pint of deeply stained fluid escaped through the drainage-tube, but within twenty-four hours the discharge had ceased and the glass tube was removed. After the operation no fluid re-collected in the general peritoneal cavity, but a collection formed below the liver, which proved to be an adherent and distended gall-bladder, which was drained.

The important fact to be learned from this case is that a considerable quantity of bile may remain free in the abdomen for five weeks and produce no other symptom than a serous effusion, the deleterious influence of which appeared to be purely mechanical, as all discomfort disappeared at once and permanently with the removal of the mixture of bile and serum.—*N. Y. Med Journ.*

Statistics of Breast Amputations.

Terrillon, in a recent number of the *Bulletin General de Therapeutique*, publishes a practical paper on the immediate and remote results of a hundred cases of amputation of the breast performed by himself. They are divided into forty-eight cases of carcinoma with enlarged axillary glands; thirty-one of mixed growths, mainly sarcomatous; twenty-one of adenomata or cystic growths. Out of the first series, forty-

two are dead, but recurrence has taken place in all of the remaining six. Of the second series, two only are dead; one of these lived eight years, recurrence taking place in the region of the scapula, the other lived four years, recurrence showing itself in the axillary region. Of the last series all the patients are alive. Thus, out of the whole number submitted to operation, fifty-six are still living, and forty-four were only benefited in varying degrees. With regard to the forty-four carcinomatous cases the following details may be given of the periods of their survival: One patient lived seven years; two survived five years; four four years; five three years; eleven two years; twelve one year and a half, and lastly, eight less than one year. He remarks that recurrence seems to be the rule when, after removing the breast, it is found at the same time necessary to extirpate some of the axillary glands. The recurrence, moreover, most commonly takes place in the first year—that is, there is seldom survival beyond the seventh or eighth year. The paper includes various remarks about complications arising from the operation and the after treatment. *The Med. Press.*

Transmissibility of Syphilis.

As published in his magnificent *Atlas of Venereal and Skin Diseases*, Prof. Morrow's conclusions in reference to the hereditary transmission of syphilis are:

1. A syphilitic man may beget a syphilitic child, the mother remaining exempt from all visible signs of the disease; the transmissive power of the father is, however, comparatively restricted.
2. A syphilitic woman may bring forth a syphilitic child, the father being perfectly healthy; the transmissive power of the mother is much more potent and pronounced, and of longer duration than that of the father. When both parents are syphilitic, or the mother alone, and the disease recently acquired, the infection of the fetus is almost inevitable; the more recent the syphilis, the greater the probability of infection, and the graver the manifestation in the offspring.
3. While hereditary transmission is more certain when the parental syphilis is in full activity of manifestation, it may

also be effected during a period of latency when no active symptoms are present.

4. Both parents may be healthy at the time of procreation, and the mother may contract syphilis during her pregnancy, and infect her child in utero. Contamination of the fetus during pregnancy is not probable if the maternal infection takes place after the seventh month of pregnancy.—*Weekly Med. Review.*

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

A CASE OF PORRO-CAESAREAN OPERATION.

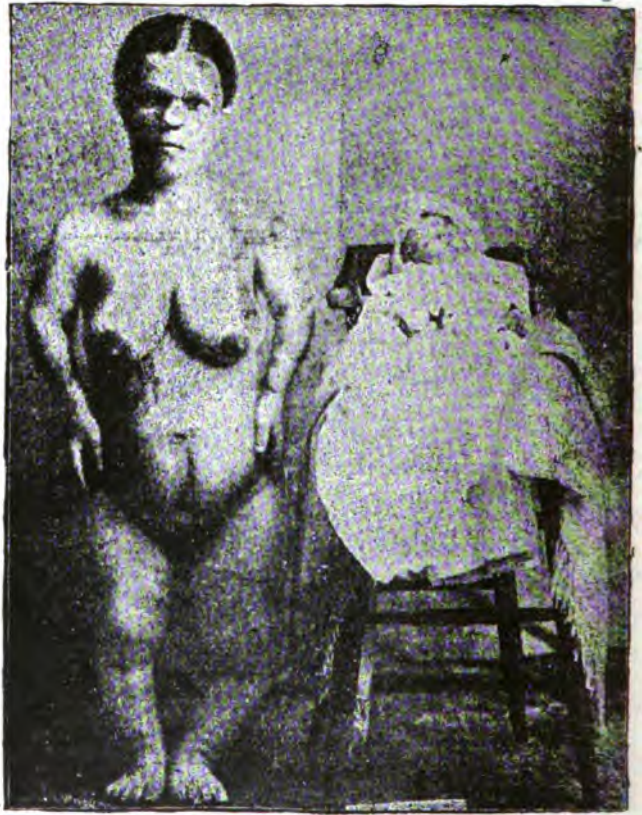
Read at the meeting of Ohio State Medical Society,

BY J. F. BALDWIN, M.D., COLUMBUS, OHIO.

Mrs. I. F. W., aged 24 years, weight 100 pounds, height 47½ inches. I was called to see the patient by her attending physician, Dr. J. F. M. Heeter, July 12, 1889, and found a typically rachitic dwarf, who was, according to her account, at about the full term of gestation. External and internal examination showed a uniformly contracted pelvis, with an antero-posterior diameter of about one and one-fourth inches. The case was manifestly one for the Cesarean section, or some of its modifications, and it was agreed that the Porro operation was the best under the circumstances. The patient was quite intelligent, and placed herself unreservedly in our hands. Her hygienic surroundings were bad, as she lived with her husband in a cellar basement.

July 19, 10 P.M., I was called again and found her in labor. The pains were short and frequent, and the os just beginning to open. Labor had commenced about five hours before. We ordered full doses of morphine, hoping thus to delay labor so as to operate by daylight. But in this we were disappointed. The pains continued to increase in frequency and severity, and by 2 A.M. of the 17th it was evident that longer

delay would diminish the chances of recovery. The pains at that time recurred every three minutes, and the os was dilated to the size of a twenty-five cent piece.



The operation was performed after the method of Tait. While I had with me, for any emergency, my regular laparotomy case of instruments, I laid out: two scalpels (one for shaving the pubes), a few hemostatic forceps, two feet of pure rubber tubing, two knitting needles, ligatures, sponges, a draining-tube and sutures.

As soon as the parts were cleansed and shaved an incision was made in the linea alba down to the womb, the incision being barely long enough to enable me to introduce my hand.

The rubber tube looped between two fingers was then carried over the fundus and pulled down to the cervix, the fingers being carried around at this point to ascertain that no bowel had been caught. Everything then being in readiness, this tube was quickly tightened, a single hitch made, and the ends given to an assistant. The uterus was next incised, this small incision torn by the two index fingers to the full extent of the abdominal incision, a leg grasped and the child promptly delivered. Dr. Heeter at once seized the cord with compression forceps, cut it and proceeded to resuscitate the child. The placenta was then extracted through the wound, the rubber tube tightened and secured by a second hitch, the cervix transfixed by the knitting needles in the form of a St. Andrew's cross, and the body of the womb and the ovaries and tubes cut off. There was no hemorrhage from the stump, but there was some from the left broad ligament, which seemed to have been cut by the pressure of the tube. This hemorrhage was easily controlled, though owing to the poor illumination, it caused considerable delay. The bleeding point being finally secured, the abdomen was thoroughly washed out, a drainage tube inserted, the incision closed in the usual way, and the stump treated with perchloride of iron. There was no perceptible shock, and the patient came out from the anesthetic nicely. There was some discharge, for a few hours, from the drainage tube, which was removed on the second day.

Convalescence was prompt and unmarked by any special occurrences. The highest temperature was 101°. The rubber ligature came away with the slough on the thirteenth day. Her milk came in small quantity at first, but soon became ample for the support of the child. In three weeks she was permitted to be removed to a distant part of the city and the case was virtually dismissed.

The child was a female and weighed at birth 7½ pounds. Although inheriting the peculiar deformity of the mother, it thrived very well until April 6th, 1890, when it became affected with angina Ludovici, of which it died two days later.

The technique of Porro's operation, as given by Tait, is as follows:

"The first step is the abdominal incision, four inches in length, involving first the skin and then the muscles down to the sheath of the rectus, all of which ought to be divided by a sharp knife at one blow; then the tendon of one or other of the recti is opened, the muscular tendons fall aside, the posterior layer of the tendon is nipped up by two pairs of forceps, and divided between them. The extra-peritoneal fat is treated similarly, then the peritoneum is raised again by two pairs of forceps, a slight notch being made between them, and the moment this is effected air enters and all behind falls away. No director is required, nothing but an observant pair of eyes, lightly applied forceps, and a delicately applied sharp cutting knife. The finger is then introduced into the peritoneal cavity, and the relations of the uterus and bladder exactly ascertained. The peritoneum is then opened to the full extent of the four-inch incision, and the cut edges of the peritoneum are seized on each side by a pair of forceps, and pulled severally to the respective sides. No better retractors can be employed.

"The piece of India rubber drainage tube, about eighteen inches or two feet long, is now held as a loop between the fore and middle finger of the left hand, and is by that means slipped up over the uterus and pulled down over the cervix, passing the fingers behind the cervix to see that coils of intestine are not included in it. One hitch is then made on the tubing when it has been got down as far as possible, and it is pulled as tight as is consistent with safety. The second hitch may be made in it, but what is far better an assistant keeps the tube on the strain, so that one hitch will be quite enough to effect the most efficient clamping. •

"A small hole is then made in the uterus, just long enough to admit the finger. If it is possible, the position of the placenta may then be ascertained; if not, the right forefinger follows its colleague, and between the two, by gentle rending, an aperture is made in the uterus and the leg of the child is seized. The fetus is then carefully delivered feet first, and this, despite all the authorities to the contrary, is by far the

best proceeding; less blood is lost, and it requires but very gentle manipulation to release the head.

"As soon as the fetus is removed, the placenta is sought for and removed similarly; the uterus itself, being completely contracted by this time, is then pulled out of the wound and the elastic ligature is tightened once more and finally arranged round the cervix, and the second hitch is applied. The main details of the operation are now completed; all that is required is to pass the needles through the flattened tube and through the uterus and out at the other side, forming a St. Andrew's cross, or two parallel bars, to support the weight of the uterus and the stump, and keep it outside the wound. A complete toilet of the peritoneum is then made, not forgetting the anterior vesical *cul-de-sac*; stitches are passed in the ordinary way to close the wound accurately round the uterine stump.

"The uterus is now removed close down to the needles and strangulating rubber tubes, so as to leave a little tissue above. It does not do to run any risk of the ligature slipping off, though this is hardly possible after the needles have been passed carefully through the structure of the tube. A little perchloride of iron is then rubbed gently over the surface of the stump; it is dressed with dry lint and some dry cotton gauze, an ordinary obstetric wrapper is put on, and the operation is at an end. The operation really takes very much less time to perform than it takes to describe, and, as I have said before, because the details must always be the same, it is an operation in which there can never arise any unforeseen or any unexpected difficulty."

DR. G. J. TOBIAS of Chicago says: I am prescribing your Three Chlorides Elixir (ferri, hydrarg. et arsenicum) almost daily with the best results. As a specific alterative, if there be such a thing, your mixture deserves special mention, and as a thorough tonic it has given most excellent results. Alone, or in combination with the soluble salts of the iodides, it fills an important place in the field of therapeutics.

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

DOUBLE OPTIC NEURITIS OF MALARIAL ORIGIN.

Read before New York State Medical Society, Feb. 3, 1891,

BY FRANK W. RING, A.M., M.D., NEW YORK.

January 12, 1888, Mrs. F. K. W., æt. 55, consulted Dr. C. W. Packard, of New York, on account of failing vision. The patient was referred to me. She complained of a blur in the upper field. Upon examination, I found moderate peripheric impairment of the field in the left eye. Right vision equals 20|15 with +.75. Left vision, 20|20+ with +1.0. Ophthalmoscopic examination negative.

January 13. The following morning the patient was led to my office by a daughter. R. V. equals 5 fingers; L. V. equals perception of light. She had retired the preceding evening seeing as well as when at my office in the morning, and awakened practically blind. Right field with candle, quick and good. Ophthalmoscope showed marked papillitis, œdema of the disc, evident infiltration in and near the optic nerve, veins slightly enlarged, no pulsation, arteries about normal, outline of disc somewhat obscure, slight tortuosity of veins, no retinal changes apparent. Approximate swelling at $3\frac{1}{2}$ dioptics of nerve.

Thinking the case of unusual interest, I took the patient to Drs. Agnew and Webster. They corroborated my diagnosis, and expressed surprise at the rapidity of loss of vision.

January 18. Perception of light in each eye. January 22. V. equals nil.

January 30. Sixteen days from beginning neuritis, complains of stiffness in knees. Has more or less difficulty in walking. When reclining, finds it impossible to turn over. The affection of the joints came on suddenly, and in four days the patient could not rise from a chair without assistance. By being supported, she could shuffle along the floor. On

striking her quickly under the hip, the limb would fly up, and by this action she could ascend stairs. There was complete paraplegia, exaggerated reflex, ankle clonus. In fact, she lost all locomotive power of the lower extremities. The skin felt thick and numb. Bladder unaffected.

February 5. Patient for the first time in fourteen days has perception of light. Has enough control of her limbs to enable her to move about with the aid of a chair.

February 22. Vision improving. R. V. equals 10 fingers. L. V. equals 5 fingers. Color perception lost as far as could be ascertained. Six days later can distinguish bright red. Field good, retinal vessels slightly diminished in size.

March 7, 1889, thirty-nine days from beginning of paraplegia, is able to walk. R. V. equals 20/200; L. V. equals 4/200. Field good, color sense diminished. Nerves pale, otherwise the fundi are normal, with the exception of slight decrease in caliber of arteries.

April 7, 1889. R. V. equals 20/40; L. V. equals 20/100. Color sense varies; calls red, brown. Left nerve whiter than right.

April 17, 1889. Stiffness in knees entirely gone. Color perception impaired.

February 14, 1890, two years from initial papillitis, R. V. equals 20/15 with +.5; L. V. equals 20/20+ with +.5, which is a return to the original vision before the neuritis. Color sense decidedly impaired.

December 29, 1890, last examination and nearly three years from beginning neuritis, R. V. equals 20/15 with +.75; L. V. equals 20/20+ with +1.0. Ophthalmoscopic appearance: Right nerve bluish white, veins normal, arteries slightly diminished; no tortuosity; lamina cribrosa plainly visible. Left nerve bluish white, otherwise the fundus has a normal appearance. Color sense: pale yellow, green or pink looks drab; cannot distinguish green from blue. Right eye—the field for yellow is much contracted. A little less for red, and less than normal for blue. Left eye—yellow visible in central vision only. Red, field tortuous in outline and very much diminished. Blue, contracted much less than in right, with a large scotoma in upper field. Field for white perfect in each.

The patient received a nutritous diet, iodide of potash, arsenic and strychnia.

During the entire illness, the patient was free from pain, slept well, appetite good, no nausea, no headache. The urine was examined several times, with negative results. No specific history. She had had eight children, all healthy, no miscarriages. Passed the climacteric at forty-two years. Mrs. W. had been a decidedly healthy woman, with one exception, and that exception is best expressed by the following extract from a letter written by Dr. Packard: "So far as I know, Mrs. W. has no specific taint. I have treated her during the past few years for several malarial attacks, accompanied with fever, characterized by periodicity, and that yielded to quinine. At such time she had suffered from gastralgia and enteralgia that I believed to have a malarial basis."

Resume.—An apparently healthy woman consults an oculist because of a slight blur in her vision. He finds both fundi normal, pupils slightly dilated and responsive to light. During the same night she becomes practically blind. The only apparent cause is a marked papillitis. This continues to be an idiopathic affection for sixteen days, then she has a paraplegia. The vision becomes totally lost. In fourteen days, upon a relaxation of the paraplegic symptoms, the sight gradually returns; and in two years is normal, with a decided defect in color vision.

Was the neuritis an idiopathic affection, or was it concomitant to the paraplegia, and what was the existing cause of both?

Optic neuritis is often accompanied with headache, nausea and vomiting; and it usually occurs from some intra-cranial disease, tumor or other adventitious product.

With tumor the progress is inclined to be slow and the prognosis grave. To be brief, let us exclude tumor as a cause, also meningitis and sclerosis and Bright's disease, for palpable reasons.

Retro-bulbar neuritis (von Græfe).—A condition in which we may have a sudden loss of vision. The pupil is usually widely dilated and not responsive to light. The disc becomes slightly elevated. Arteries small, veins tortuous.

"In retro-bulbar neuritis in the acute form, we have headache, orbital pain, increased by movement of the eye and pressure. Serous effusion of the optic disc and retina, due to compression of retinal vessels." (Knapp.)

In Noyes' admirable treatise on the eye (1890) he describes a toxic retro-bulbar neuritis, where the atrophy succeeding the inflammation is due to a lesion of the axial fibers of the nerve, and cites a case of Uhthoff's, where he localizes the character of the lesion in color scotoma. If there is a retro-bulbar neuritis due to tobacco and alcohol poisoning, why may there not be a similar affection due to malarial poisoning?

There are certain affections due to the action of malarial poison upon the system. There is a *bacillus malarix* particularly affecting the spleen. This bacillus has been found in the blood during the fever, causing marked changes in it.

Let us turn our attention to another cause of papillitis, denied by some, *i. e.*, distention of the sheath, or hydropsia of the optic nerve, which is a serous effusion into the optic sheath coming from the cerebral arachnoid space.

"A fluid effusion into the arachnoid space and increased intra-cranial pressure are always associated with an accumulation of fluid in the intra-vaginal sheath, which edema will cause a swelling of the optic nerve." (Schwalbe.)

"The intra-cranial pressure must force the fluid from the arachnoid space along the sheath of the optic nerve into the canal-like system present in the lamina cribrosa, causing swelling and congestion of the disc." (Pagenstecher.)

Bull says loss of vision from isolated papillitis alone is never sudden, and that distention of the sheath alone is not sufficient to produce papillitis, but may intensify it. Hughlings Jackson is of the same opinion, and the latter also says there is nearly always a visible stage of neuritis before sight fails.

Macnamara, in his text-book of diseases of the eye, cites a case precisely similar in many respects to the one in question. A girl, *æt.* 13, was attacked with intermittent fever, after which she had paralysis of the lower extremities, and a partial inability to move the right arm. Pupils dilated and insensible to light. Optic papillæ swollen and hazy, with serous effusion into the nerve and surrounding tissue. She became

quite blind. Her recovery was gradual and perfect, both as to the paraplegia and vision. He remarks that this is an example of a class of cases not very uncommon in India, and depends upon malarial poison affecting alterations in the blood. He gave, as a direct cause, a serous effusion into the optic thalami and corpora striata. The pressure thus exerted on these nerve centers interfering with the volition of the patient over the affected limbs, and the serous effusion or exudation into the papilla and pressure upon the optic nerve fibers, causing the loss of vision.

I offer this paper as a contribution to the literature on optic neuritis. I am aware there may be double optic neuritis, with and without loss of vision; also with gradual or sudden loss of vision. But, as a rule, there is a stage of neuritis visible before the blindness. Here the fundi were known to be normal a few hours before an almost total loss of sight.—*Amer. Jour. Oph.*

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EDITORIAL CORPS.

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SHEP. A. ROGERS, M.D.

Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this. Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting.

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

WM. KRAUSS, M.D., Business Manager.

Memphis, Tenn.

BOB-TAILED MEDICAL DIRECTORY.—A new directory has recently been put off on the unsuspecting medical profession of the Southern States, and lest the same fraud is being prepared for other sections, I present a few points worthy of note concerning the Southern Medical Directory.

The title page reads "Physicians, Dentists and Druggists" Directory of Alabama, Georgia, Louisiana, Mississippi, South Carolina and Tennessee—Comprising List of Physicians and Surgeons, Dentists and Druggists, arranged alphabetically, by

postoffices, etc. Galen, Gonser & Co., publishers, New Orleans, La. 1891. Price \$2.00, complete in one volume."

I have not investigated with reference to dentists and druggists, but am free to say it is an *incomplete list of the physicians* in the Southern States—since it contains but about one-third the number of names in these States, as furnished by Polk's Directory. That the directory was not compiled by G. Gonser & Co. within the past year is evident. This I can say because I can point out names of men whose location has been changed from that given, for four on to five years; some by reason of death, others, removal to other States, others by sojourn in lunatic asylums. It is what might be termed a "short horse" directory.

My attention was called to this directory while yet ostensibly in preparation, by a canvasser who solicited the card of an institution with which I am connected, for publication among the "ads." After several visits and much annoyance to me, this canvasser secured my signature for contract for ad. and for the book on the following conditions:

1. The number of ads. was limited to thirty.
2. None but cards of recognized reputable institutions and men, were to be admitted in the book.
3. My card was to occupy page opposite index.
4. It was to contain the names of all the physicians of the States named, and five-sixths of the physicians of Mississippi were guaranteed as subscribers to the book—names of those subscribing would appear in bold type.

In due time the book was presented, together with bills—I declined to receive the book or pay the bills:

1. Because the book contained sixty-five ads. instead of thirty.
2. Because the book contained among these sixty-five ads. the cards of at least four recognized secret nostrums, bunco men.
3. Three pages had been cut out to bring my card up to face index (stubs left *in situ*!!!)
4. It was too apparent that the directory did not contain the names of half the physicians in these States. And, on sketching it, I found many towns omitted, and some names

in bold type of parties whose residence had been changed for years.

These points were shown the canvasser who gave me *his* word of *honor* that only in the first hundred printed was my card misplaced. He tried manfully to convince me that the book was up to contract, until finally I urged him to leave—he left.

I have since taken occasion to address a line to eighteen members of the profession in Mississippi and Tennessee whose names appear in bold type. Eighteen answers to a unit, "Have never seen or heard of any canvasser or representative of the book." I have also several copies from my friends in Georgia, South Carolina and Tennessee, and find there has been no hesitancy about cutting out pages to bring a desired ad. to preferred space.

I also took occasion to address two letters to Galen Gonser & Co., New Orleans, La., asking the name of the gentleman with gall who had obtained my ad., but no reply have I had. Another letter to Galen Gonser & Co., Chicago, the address given me by Boland & Co., St. Louis, has failed to obtain any reply. The chief of police of New Orleans writes me there is no such firm of publishers known there among publishing houses.

Now what are we to conclude? Is it possible that a sharper has copied a limited portion of Polk's Directory, and is gulling the profession in various sections? It looks that way; and not being out any money, I take the liberty of warning the profession.

W. B. ROGERS.

THE KOCH TREATMENT.—As nearly every medical journal has succeeded in saying something derogatory to the parataloid treatment, it may be well to give a summary of the present status. At the convention of the German Surgical Association last April, v. Bergman stated he was not ready to drop the treatment. He had been disappointed in ultimate results, but acknowledged that it was the only real specific ever introduced into medicine. No other preparation ever exerted an exclusive action on any specially diseased tissue. The immediate results of the treatment are always good, and some-

times surprising. Max Schede, of Hamburg, expresses himself in favor of very small doses, and does not let patients get out of the "toleration," which they soon lose if intervals are too great. His results have been better than with any other treatment. Maragliano, of Geneva, reports four cases of phthisis cured out of five treated. He obtained cessation of all signs known by the medical profession. The present status may be summed up, as v. Bergman says, in that we have a remedy the real value of which we know but little, but the next year will bring us to a better understanding of this truly great discovery. Prof. Koch is now engaged in isolating the active principle of his extract in a chemically pure form. In the meantime the clinician and pathologist can do very much toward developing all that is useful of the most wonderful discovery of the age. The large number of failures are only due to ignorance of the mode of application and selection of cases. The one thing remains: Prof. Koch has paved the way to a new and unexplored field in medical therapeutics. If nothing else is accomplished, the extraordinary value of the discovery is inestimable.

THE Committee on Malarial Hematuria earnestly request the co-operation of every physician in the Mississippi Valley. The malarial season is now on us, and those who have not prepared themselves with blanks for observation should address the Chairman, Dr. Wm. Krauss of this city. An exhaustive report on this terrible malady is desired.

PHYSICIANS who intend sending pupils to college this season should not fail to send for a catalogue of the Memphis Hospital Medical College. The attendance, which was over 200 last year, promises to be even greater this time. For clinical and anatomical material it is unsurpassed by any other school. Address the dean, Prof. F. L. Sim, 126 Hernando street.

DR. J. L. MINOR is recovering from the operation performed on him, and his many friends will be glad to hear that he is now on a fair way to permanent recovery. Dr. Krauss is managing the editorial department in the meantime.

KENTUCKY has now secured a good law regulating the practice of medicine. The days of the irregular practitioner are numbered. The States in which he can practice have become very few. The following resolution was adopted at the recent meeting of the State Board of Health of Kentucky, held in Louisville:

Resolved, That the Secretary be instructed to place upon the list of Medical Colleges whose diplomas are to be certified and endorsed for registration under the laws of this State, only such Colleges as shall, after the session of 1891-'92, exact of matriculates and graduates a minimum of requirements not less than those required by the American Medical College Association.

Dr. J. N. McCormack of Bowling Green, Ky., is Secretary of this Board, to whom all further inquiries regarding the Kentucky law should be addressed.

THE American Electro-Therapeutic Association will hold its first annual meeting at the Hall of the College of Physicians, corner Locust and Thirteenth streets, Philadelphia, Pa., Thursday, Friday and Saturday, September 24, 25 and 26, 1891, under the Presidency of Dr. G. Betton Massey. Physicians interested in the discussion of electricity in medicine, are invited to attend without further notice. Horatio R. Bigelow, M.D., Chairman Executive Council. Wm. H. Walling, M.D., Secretary, 2005 Arch street, Philadelphia.

Memphis continues the healthiest city in the South. The climate has been propitious, there have been but very few warm nights this summer, and a larger percentage of her citizens have remained at home than ever before. The July death rate (including hospitals and non-residents) is only 24.80 per 1000 per annum. This and August being the months of heaviest mortality, the showing is excellent.

DR. H. M. WHELPLEY now has the chair of Physiology and Histology of the Missouri Medical College. He is also Director of the Histological Laboratory and Secretary of the Faculty. The doctor is Professor of Microscopy in the St. Louis College of Pharmacy, and editor of the *Meyer Brothers' Druggist*.

THE Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday, Thursday, and Friday, October 14, 15 and 16, 1891. Reduced rates and excellent program will bring out a large attendance. The medical profession is respectfully invited. The officers are as follows: C. H. Hughes, M.D., President, 500 N. Jefferson ave., St. Louis; E. S. McKee, Secretary, 57 W. Seventh st., Cincinnati, Ohio; I. N. Love, M.D., Chairman Committee of Arrangements, 501 N. Grand ave., St. Louis, Mo.

DR. A. L. HUMMEL of 612 Drexel building, Philadelphia, and Mr. Charles Roome Parmele of 19 Park Place, New York, have entered into a copartnership, operating under the firm name of Hummel & Parmele, the business of which copartnership is that of a *Medical Journal Advertising Agency*. All contracts made by or with A. L. Hummel or Charles Roome Parmele, individually, since January 1, 1891, are assumed by Hummel & Parmele.

WE call special attention to the two very meritorious articles in the department of Practice. The one by Dr. Turner of this city gives some original points on diagnosis of paralysis of muscles of the arm. The other article from the biological laboratory of Johns Hopkins University, deserves very careful study, as it sheds some new light on the physiological action and therapy of *ergot*.

DR. J. C. MINOR of Hot Springs, Ark., has paid us several visits. He is building up a very nice practice there. The legislative fight against quacks and drummers has made the place more desirable for honest practitioners.

DR. J. B. S. HOLMES of Rome, Ga., has erected a large Sanitarium for the treatment of the diseases of women. The institution is conducted in a manner that will meet the entire approval of the profession. The doctor is a member of the Georgia State Medical Association, an ex-Vice-President and an ex-President of the Society. See advertisement.

DR. J. L. MINOR will remove to his new and handsome offices in the Randolph Building, cor. Main and Beale streets, about August 10th. The editorial rooms of this JOURNAL will be located there.

Dr. T. J. Crofford has returned from a trip to Chicago and the lakes.

READING NOTICES.

WE call the attention of our readers to the advertisement of Robinson - Pettet Co., Louisville, Ky., which will be found on another page of this issue. This firm was established forty-five years ago, and enjoys a widespread reputation as a sound, honest, reliable business house. We do not hesitate to endorse their preparations as being all they claim for them.

MESSRS. REED & CARNICK have rebuilt their laboratory, and are better prepared than before their big fire to furnish the excellent specialties which bear their name. In this connection we invite special attention to their new advertisement. They are known everywhere, and their name is the synonym for fair dealing and scientific pharmacy.—*Practice.*

SAL ASEPTIC is a compound of dry antiseptics neatly combined to make an elegant and readily handled antiseptic solution. It is absolutely non-irritating. Physicians who have used it pronounce it the ideal preparation for irrigating wounds, mucous surfaces, etc. In obstetric practice and leucorrhea, it is an excellent vaginal douche.

TITCOMB & MCCAIN, the leading dispensing chemists, have put in the handsomest soda fountain ever brought to Memphis. They are the leaders in new and rare chemicals.

IMPOTENCY AND SPERMATORRHEA.—Ambrose Page, M.D., of Rushmore, Ohio, says: Having a large practice in the treatment of the above named diseases—impaired sexual vigor—I frequently would find in some of the most inveterate cases, after having restored them to their youthful vigor and manhood, a peculiar neurasthenia, due, undoubtedly, to reflex nerve irritation, which I was unable to control until I gave the preparation, *Neurosine*, which was recommended to me by a professional brother, a trial, and I must unhesitatingly say its action was almost magical in relieving some of my worst cases of nervous prostration, and I am confident that it is almost a specific in treating loss of sexual appetite and spermatorrhea; any case of that kind can be quickly and permanently cured. And if the preparation and results continue so highly satisfactory, I shall continue to prescribe it in the future in preference to all preparations for neurotic troubles that I have ever used.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., SEPTEMBER, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

HEALTH OF MEMPHIS.

WM. KRAUSS, M.D.,

Secretary Board of Health, Memphis, Tenn.

Perhaps no other subject has attracted the attention of sanitarians all over the country so much as the health of Memphis.

Considering the increase in population, the large transient population and the fact that Memphis is the central distributing point of the Mississippi Valley, the general health is unsurpassed by that of any large city, the death rate being lower than that of any of the neighboring cities. A large contingent of levee workers and farm hands in the bottom lands find a haven in Memphis when broken down by malaria contracted in these districts. A number of this class make Memphis their home and cannot be counted as non-residents. Another point to be considered in the calculation of the death rate is the negro population, whose death rate is nearly one-third higher than that of the whites.

The subjoined table of annual death rates for 1890, of some of the cities from which data are on our files, speaks for itself:

	Per 1,000 Population.
New York.....	24.58
Baltimore.....	22.41
Chicago.....	18.22
Cleveland.....	19.08
San Francisco.....	19.33
Pittsburg.....	20.74
Richmond.....	23.18
Charleston.....	27.94
Mobile.....	21.17
Memphis—White.....	19.33
Memphis—Colored.....	26.15
Memphis—Total.....	22.40
Memphis—Residents proper.....	16.21

The estimate for this year, if based on last year's estimated population, will give slightly higher figures, but this increase is almost altogether restricted to the colored population. Subjoined is a table of total deaths in Memphis for fifteen years. Considering the constant increase in population, it is an excellent showing for the health of Memphis.

Year	White	Colored	Non-res- ident	Total
1876.....	665	610	75	1275
1877.....	644	613	158	1257
*1878.....	2427	1539	155	3965
*1879.....	832	757	104	1589
†1880.....	472	489	130	961
1881.....	665	800	99	1471
1882.....	420	701	228	1121
1883.....	610	793	308	1403
1884.....	756	921	419	1677
1885.....	666	818	296	1484
1886.....	676	749	290	1425
1887.....	673	796	366	1469
1888.....	745	795	478	1540
1889.....	657	665	479	1322
1890.....	638	706	280	1344

*Yellow fever years.

†Population much reduced, many refugees not having returned.

The figures for 1891 will be about 1850-60. There has been an increase over last year in the exanthematous diseases—measles, scarlet fever, diphtheria—but they are subsiding. In February, when the Texas smallpox scare prevailed, a corps of skilled physicians made a house-to-house tour, vaccinating 1559 people, principally colored, and the majority of these

were children. The regular school vaccination had been going on all winter, over 600 children having been furnished certificates of vaccination. A fact not generally known is that there were were three cases of smallpox reported to the Board of Health in February and March in Memphis. They were sent to the Pest House, where, under the skillful treatment of Dr. Cannon, they all recovered. The houses from which the patients were taken were promptly fumigated, and no subsequent cases developed.

In May, when scarlet fever was prevailing to a somewhat greater extent, the Board of Health at a meeting decided to take advantage of legislative authority requiring physicians to report cases of a contagious character within a mile of the city limits. It is gratifying to announce that the profession responded very promptly to this additional requirement without complaint.

Although this measure entailed an additional expense to the department, the efforts of the Board were rewarded by a steady diminution in number, as well as fatality, of scarlet fever. It will thus be seen that we are able to handle contagious diseases successfully without flurry or causing any panic.

Owing to adverse opinions of higher courts, many condemned houses remain standing, though much is accomplished by the sign "condemned," preventing their being occupied by tenants. The present President of the Board of Health, Dr. S. A. Rogers, on his accession, at once appointed ten special house-to-house inspectors, who inspected every house in the city, paying special attention to yards, closets, sewer connections and water supply. As a result, the inspection was entirely completed before the beginning of warm weather, many leaky and faulty wells and cisterns filled up, and other nuisances abated. Much anxiety was felt at the wholesale tearing up of streets, and many were the inquiries as to its probable effect on the public health. This anxiety had its foundation in the belief that the tearing up of the old Nicholson pavement in 1879 caused the epidemic that year. There has been no perceptible effect on the city's health from this tearing up, nor was it expected by the authorities. There is

not the amount of decaying organic matter in the soil, and any germs of twelve years ago have long since succumbed, both for want of proper nourishment and on account of the coal gas impregnating the ground. The contemplated establishment of a dump boat at the foot of Webster street will be a great relief from one source of annoyance to our citizens and make the garbage service for the southern portion of the city far more efficient. There is as yet no practical crematory extant for the disposition of garbage, and until there is, recourse must be had to the river.

One of the most important accomplishments of the Board of Health this year is the regain of the control of the milk traffic. The beneficial effect of this move will make itself felt before the next summer, and it is hoped that the death rate of children will be diminished thereby. The appointment of plumbing and meat inspectors by the City Council last year was a most valuable step from a sanitary point of view. Our plumbing inspector, Mr. Wm. Lunn, has done excellent service in preventing faulty construction in sewers and house drains.

Despite the fact that the summer exodus has been very much smaller than in former years, physicians and apothecaries report "dull business" for the summer.

With the assistance of the Legislative Council, which has always proved itself wide awake in health matters, many improvements have been accomplished, and many others are under way.

The progressiveness of Memphians in sanitary matters, and the alacrity with which violations of health ordinances are reported, is a great help to the department. Indeed, many reforms would have failed were it not for the public interest in this important department of public service.

MEDIASTINAL DISEASE.

E. S. M'KEE, M.D., CINCINNATI, O.

A case of carcinoma of the mediastinum is reported by Tissier¹ as occurring in a young woman 27 years of age. The patient died of cyanosis, the diagnosis of tuberculosis having been made. The autopsy showed the mistake and a neoplasm

which occupied the anterior and superior part of the mediastinum. Histological examination revealed carcinoma of fibrous stroma, well developed, presenting nothing special. Letulle² reports four such cases in a clinical lecture at the Hotel Dieu. Cerne³ reports a case of pseudo tumor of the mediastinum where the diagnosis was made of tubercular ganglions of the mediastinum. The autopsy showed no trace of tumors, ganglionic or otherwise. It proved to be a tuberculous abscess, which had established communication with the bronchus and emptied itself.

Barrett⁴ reports the medical examination of the sputum in cancer of the mediastinum and lung. The sputum was singularly gelatinous and viscid. It could be drawn out in strings twelve inches in length. Epithelial cells like corpuscles were present in great numbers, and once an imperfect epithelial cell was noticeable. Autopsy showed a new growth occupying the posterior mediastinum, which, upon microscopical examination, proved to be a slow growing scirrhus.

Napier and Stevens⁵ report a case of mediastinal tumor presenting certain of the features of Hodgkin's disease, in a patient who had suffered from genuine rheumatic attacks. Post-mortem examination showed a large, dense mass filling the anterior and posterior mediastinum and enveloping the heart, which was lodged in a cavity on the left side of the growth. The mass was removed from the chest and included trachea, large vessels, heart, left lung, and a part of the right lung. A portion of the spleen was also removed. Microscopic examination showed the tumor to be fibro-sarcoma. Certain leading features of Hodgkin's disease were absent, especially the affection of the spleen. The reporter thought possibly the distinct rheumatic diathesis had something to do with the disease. Was it not possible that the nodules situated in front of the patient's chest, thirty to forty in number, were rheumatic? The remarkable characteristics of the tumor were the peculiar way in which the growth had embraced without incorporating the normal structures and organs; the exceedingly tough, dense and fibrous structure of the growth, almost resembling on section the myoma of the uterus; the distinct limitation of the new growth to the anterior medi-

astinum and the region behind the epernum and its association with a similar growth in the neck.

Moore⁶ presented a specimen of the new growth of the mediastinal glands and left lung in a boy 10 years old. A dense mass of whitish new growth invaded the whole upper part of the left lung and included all the upper mediastinal glands. The growth was a sarcoma. There were signs of pressure on the recurrent laryngeal and on the sympathetic. The left pulse was absent, owing to the complete compression of the subclavian artery, into part of which the growth extended. There was febrile temperature throughout.

1—Bulletins de la Societe Anatomique, December 20, 1889.

2—La Semaine Medicale, 1889.

3—La Normandie Medicale, December 15, 1889.

4—Australian Medical Journal, November 15, 1889.

5—Glasgow Medical and Surgical Journal, December, 1889.

6—British Medical Journal, October 25, 1890.

DEPARTMENT OF GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

1. **Report of a Case of Subclavian Aneurism, with Ligation of the Subclavian—Cure.**
2. **Report of a Case of Nephrorraphy.**

F. T. MERIWETHER, M.D., ASHEVILLE, N. C.

Surgeon Mission Hospital.

In reporting this case, I shall not attempt to make comments upon it, but do so to swell the statistics showing the wonderful advantages of antiseptic surgery over the non-antiseptic.

Robert S., aged 60, colored, male, widower; by trade a blacksmith.

About two years ago, while still at the blacksmithing trade, he noticed a swelling above the right sterno-clavicular articulation, attended with pain. It was pulsatile and increased

when the arm was used. He was seen by a physician, who gave him a liniment which did a little temporary good.

The swelling and pain increased, the pain radiating over the right side of the head, and down the right shoulder and arm; some difficulty in swallowing and a cough, which gives more or less pain, and which causes the tumor to rise high in the neck.

Upon February 16, 1889, the first time I saw him, his vision had failed until there was practically amaurosis, though the left eye is able to distinguish shadows and lights. The right pupil was more contracted than the left. Ophthalmic examination revealed an atrophy of the optic nerve, with retinitis pigmentosa. True aneurismal bruit and slight impulse over the upper right chest walls. The tumor was about three inches long and two inches in diameter, extending below the sterno-clavicular articulation. Pulsation in the right radial artery slightly impaired in quality. The right carotid seems normal.

The diagnosis was made of aneurism of the first part of the right subclavian, involving the innominate.

I operated upon February 21, assisted by Drs. Watson, Fletcher, Cheesebrough and Jordan. The usual incision was made for ligation of the subclavian in the third part. The external jugular vein crossed the line of the incision almost in the middle, being the size of the little finger there. It was dissected out and held to the inner side of the incision by retractors. The brachial plexus was exposed, and it was remarked how much some of its cords resembled the artery, except for the longitudinal striation of the nerve and the circular striation of the elastic fibres of the artery. The artery was quite deep, but was dissected out.

Catgut was used to ligate the artery, with light catgut for the sutures. There was not half a teaspoonful of blood lost, not enough to discolor the water in the first and only basin used. Iodoform and iodoform gauze used as dressing. Time of operation, thirty minutes. Chloroform was used as the anesthetic, and patient came from under it in half an hour.

February 22d. No rise of temperature; pulse 80. Patient had slept well and said he was feeling all right.

February 24th. From ignorance the patient had removed most of the dressing to get at the wound to scratch it, as he said he could not stand the itching. When completely removed, the incision was found completely united, no suppuration or discharge. Improvement in all the subjective symptoms, though the pulsation is not materially affected. Tumor seems to be more firm and solid.

March 4th. Still complains of some pain in shoulder. Slight pains in chest walls from probable wound of a thoracic branch of the brachial plexus. No cough. Pulsation in the right carotid much exaggerated. No bruit or thrill over tumor. Slight enlargement of the right carotid.

March 20th. Patient almost entirely relieved from pain, and, in fact, all subjective symptoms. The tumor is hard and firm, and is becoming smaller every day.

Patient says his eyesight is improving, but no reliance is placed upon this statement.

April 13, 1889. Aneurism decreased in size; no pain in shoulder.

April 21, 1890. Aneurism size of walnut, hard and firm, and no disturbance felt from it.

At present writing the tumor is still decreasing in size.

Pulsation returned in the right radial three days after the operation.

History of syphilis or of hereditary influences were not obtained, though the former was probable.

II. Female, aged 44. For the last six or seven years she has noticed a lump in her side, which she attributed to some uterine disturbance, as about the time she noticed it first she had an abortion. It grew slowly, and after lifting or straining she would be seized with violent colic, caused probably by twisting of the pedicle, which would last two or three days. She would then feel it turn over and then the pain would gradually subside. During these times of colic almost total suppression of the urine would occur. Her general health was good, but during the attacks of colic she would suffer intense pain.

Upon examination the tumor was found to be slightly larger

than the normal kidney, low in the left abdominal cavity, simulating an ovarian tumor. No particular disturbance of menstrual function. Examination per vaginam revealed nothing relating to tumor except to show that it was not attached to uterus nor to the appendages. The urine was tested, but showed nothing abnormal. Palpation revealed but little owing to thick abdominal walls and large lumbar muscles. Operation was determined upon September 16, 1890. Operation was performed at Mission Hospital, chloroform being used as an anesthetic. The nature of the tumor not being certain, a median abdominal incision was made, three inches in length. Upon examination through the incision the tumor was found to be the left kidney enlarged and floating freely. It had been the intention to remove the kidney entirely, but no kidney was found upon the right side. The right renal artery seemed to be absent, while the left was enlarged one-half. Nephrorraphy was then determined upon. Owing to the thickness of the walls of the abdomen and its depth, a suture could not be passed through the abdominal incision. The usual lumbar incision was made just anterior to the quadratus lumborum muscle. The kidney was reached without much difficulty, but from fear of interference with its function the suture was passed only through the fatty tissue surrounding the organ. A silk suture was thus passed, with the assistance of a hand through the abdominal incision, suturing the kidney to the quadratus lumborum. Practically no blood was lost. Catgut was used for suturing the incision, and an iodoform dressing applied. Patient rallied nicely. Considerable pain complained of in region of lumbar suture, but this subsided on seventh day. Upon this day the dressings were removed and union was found perfect. No suppuration. Patient's urine was a little ropy and very scanty on the second and fourth days after the operation, but soon cleared up. She was allowed to get out of bed on the sixteenth day. No tumor could be felt at this time. Patient had no trouble from pain and no colic for two months.

About December 15th, while acting as nurse in Hospital, she did some lifting which was followed in two or three days by a dragging pain in left side. This increased in spite of

pads, etc., until the kidney descended two or three inches from its place. There it has stayed since. It does not move freely and she has no colic from twisting, and recently has had no trouble from it. Urine normal. A second operation could hardly be done, as, if the suture were to be passed through the substance of the kidney, there being but one organ, interference with its function might be so great as to result fatally. *Annals of Surgery.*

Successful Transplantation of Malignant Growths in Human Beings.

The *Lancet's* Paris correspondent, in a letter published in that journal for July 4th, says that a communication on this subject, which has evoked quite a tempest of expostulation in both the lay and medical press, was made by Professor Cornil at the Academie de medecine on the 23d of June. For many years past, the writer continues, attempts have been made to reproduce cancer in the lower animals by the process of grafting or by the injection of cancerous juice. In this connection the names of M. Goujon, M. Onimus, and M. Legros will be familiar to your readers, nor will the successful attempts of Hanau to transplant fragments of malignant growths from one animal to another of the same species be forgotten. The positive results obtained by Dr. Morau—results communicated to the Societe de biologie on May 2d, and rigorously controlled histologically by Professor Cornil—prove that the cylindrical epithelioma of the mouse can be exactly reproduced in a healthy individual of the same species by simply injecting hypodermically the milky juice of the neoplasm. It has, however, been reserved for a surgeon, not of French nationality, and whose name Professor Cornil did not, for obvious reasons, feel justified in divulging, to prove experimentally that fragments of sarcomatous and epitheliomatous growths can be transplanted from one human mamma to its healthy fellow, there to develop into tumors both clinically and histologically identical with the parent neoplasm. In the first and more conclusive case, a woman suffering from a large tumor of the breast had it removed by a surgeon who, while the patient was still under the influence of chloroform, inserted a minute fragment of the excised growth into the other breast,

which was then quite healthy. Antiseptic precautions having been rigidly taken, primary union ensued. But soon there developed in the gland experimented on a hard nodule, which, having after the lapse of two months attained the size of an almond, was in its turn excised by the same practitioner. Fragments and sections of the two tumors were forwarded to Professor Cornil—this occurred four years ago—who found that they were structurally identical, being composed of fasciculated sarcomatous tissue, made up of long fibro-plastic cells arranged in decussating bundles. Sections of the graft-born tumor revealed a large number of cells undergoing the process of karyokinesis, indicating rapid growth. Its vessels had anastomosed with those of surrounding parts, and its cells had penetrated gradually into the neighboring normal parts and effected their transformation into sarcomatous tissue. The patient succumbed some time after the second operation to an acute intercurrent affection, and the necropsy failed to bring to light any trace of sarcoma either in the lymphatic glands, the viscera, or the cancellous bony tissue. It is thus fair to assume that the grafting was a genuine process, and that the growth developed at the seat of the transplantation was not a secondary one of spontaneous origin. The second experiment was analogous to the first, only in this case the growth originated by the grafting in the healthy mammary gland could not be compared histologically with the original neoplasm—a cylindrical epithelioma—owing to the patient refusing to submit to a second operation, and having been consequently lost sight of. These experiments are obviously, when viewed from a scientific standpoint, of vital importance, and, considered in connection with recent researches on the parasitic nature of malignant growths, cannot fail to be of great use to future investigators. But morally no possible excuse can be found for such trifling with a precious human life, and the conduct of the anonymous surgeon in question fully merits the condemnation passed on it by M. Le Fort and M. Moutard-Martin, whose remarks were cheered to the echo by the members of the Academie present on the occasion. It is only just to add that Professor Cornil hastened to associate himself with the sentiments expressed by

his colleagues, alleging that his sole motive in bringing the matter to the notice of his fellow academicians was a purely scientific one. The lay press was, of course, not behindhand in indignantly protesting against such an inhuman proceeding, and until the Director of the Assistance Publique declared, in reply to a question put at a sitting of the Conseil Municipal, that the experiments had not taken place at any of the Paris hospitals—the *Bulletin Medical* goes further and denies its occurrence at any *French* hospital—the emotion was great among the public. No one who has the privilege of knowing Professor Cornil, who is kindness itself, would for one instant entertain the belief that this distinguished pathologist had been actuated by aught but the most elevated humanitarian motives in making public—after a lapse of four years, be it said—the results of an experiment whose practical importance cannot well be exaggerated, however severely one may condemn the proceedings of its author.—*N. Y. Med. Journal.*

A Remarkable Find—Foreign Bodies Swallowed by a Stowaway.

In the issue of the *Lancet*, of London, of May 30th, an editorial details the most remarkable “*find*” of foreign bodies found in the cadaver of an Arab we ever heard of. We quote as follows :

“ On Thursday, May 21st, the body of an Arab, found dead in one of the ships in the Albert docks, was taken to the Seamen’s Hospital, name unknown. A necropsy was ordered by the coroner, and made by Dr. F. Croucher, house surgeon to the branch hospital. There were no signs of disease in the brain or the chest, except a few old adhesions in the left pleural cavity. The gall-bladder was very distended and full. Three small ulcers existed on the anterior coat of the stomach. Several patches of inflammation were found in the small intestine. In the cæcum were found twenty trousers buttons, three cog-wheels (apparently out of a watch, two of them 1 inch in diameter—these were doubled), one 2-inch steel screw bent double and one 1-inch screw, six pieces of a lock (the biggest piece was $1\frac{1}{2}$ inches long and $\frac{1}{2}$ inch broad), a circular piece of brass ($1\frac{1}{4}$ inch in diameter folded into four), brass and lead and two key tallies on a ring, 1 inch in length. In the

ascending colon, about five inches from the cæcum, were found a piece of steel wire $\frac{1}{8}$ of an inch in diameter and $3\frac{1}{2}$ inches in length, bent double, and one small cog-wheel. The weight of these bodies together amounted almost exactly to half a pound. The body was much emaciated; no subcutaneous fat was present in chest or abdominal walls, or any fat around the kidneys. The deceased was quite unknown; no particulars could be discovered by the police employed to take evidence for the purpose of the inquest. There was no perforation of intestines, or any sign of disease in the colon." *N. O. Med. Jour.*

COMPOUND COMMINUTED FRACTURE OF THE SKULL.

Recovery.

J. M. M'DOWELL, M.D., HUDSONVILLE, MISS.

On the 30th day of June, I was requested to visit a colored boy, ten years of age, who had been struck on the head with a large piece of brick. I saw the boy two hours after the accident. The injury was received in the frontal region. There was a gash measuring two inches in length, and extending to the bone. Hemorrhage had been slight. Upon careful examination an extensive fracture of the skull was revealed, comminuted and depressed, involving both the outer and internal tables. There were no symptoms of compression, nor did the boy complain of pain. As it was now quite dark, and not having adequate artificial light (only a tallow candle), I concluded to defer operative measures until morning. The wound was dressed, a purgative administered and the patient put to bed, with instructions to his mother to keep the head well elevated.

On my visit the following morning, much to my surprise, I found my patient as bright as a new dollar. He had slept well during the night, bowels acted in the early morning. Pulse, temperature and respiration normal. Left pupil slightly dilated.

He was now chloroformed, the surface around the wound shaved and well washed with hot water. An incision was made commencing at about the center of the external wound and carried backward and slightly downward, for a distance

of one and a half inches. The flaps were carefully dissected up, the trephine applied, and a button of bone removed. The spiculæ, five in number, were without much difficulty extracted. The largest measured one and three-quarter inches in length and one-half inch in width; the smaller, one inch in length and one-sixth in width, was detached and driven between the skull and dura mater. The dura mater was uninjured. The wound, after being cleared of all debris, was irrigated with hot carbolized water. The edges of the flaps were brought together and stitched, the surface dusted with iodoform and a light antiseptic dressing applied. On the third day the dressing was renewed. The stitches were removed on the sixth, when the wound was found to be almost entirely healed. At no time was there any elevation of temperature, or the slightest head manifestation. The recovery was uninterrupted and complete.

This case is, I think, of interest as showing what great pressure the brain can sustain, without any symptoms of compression; also, how quickly and kindly large wounds in this region sometimes heal.

I am much indebted to my friend, Dr. Chesley Daniel of Holly Springs, Miss., for valuable assistance.

The Tetaniferous Man.

M. Verneul applied this term, in the *Gazette hebdomadaire de médecine et de chirurgie* for February 14th, to the person who can convey the virus of tetanus to another, although not himself affected by it. He believes that a human being may, for the time being, have in his saliva the germs of tetanus, so that if he bites another, it will be capable of inoculating the bitten person. A surgeon or veterinarian, he holds, may convey about with him the tetanic bacilli in sufficient numbers to communicate the disease to almost any person having an abraded surface or wound with whom he may come into contact. Further than that, he is a danger to himself—safe enough so long as no channel of inoculation exists, but very menacing so soon as he receives a wound. Verneul suggests that the existence of tetaniferous human beings will be found to be one of the etiological factors in the so-called “unexplained cases” of sporadic tetanus.—*N. Y. Med. Jour.*

MINOR SURGERY AND BANDAGING, Including Treatment of Fractures and Dislocations, Tracheotomy, Intubation of the Larynx, Ligations of Arteries, and Amputations. By Henry R. Wharton, M.D., Philadelphia. Lea Bros. & Co., Philadelphia.

This neatly printed and bound work is just to hand, too late for an extensive review, but we have sketched it and take pleasure in calling the attention of the younger surgeons to its pages. The cuts are excellent, and the style clear and comprehensive; and, all in all, it is quite a good work for the practicing physician's table.

W. B. R.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

REPORT OF PUS CASES.

How I Have Dealt with My Last Ten Cases in which Pus was Found in the Abdomen; All Recovered.

Read Before the Arkansas State Medical Association, April, 1891,

BY T. J. CROFFORD, M.D., MEMPHIS, TENN.

In making this report I have eliminated all cases of abdominal surgery for other than suppuration. I have not included any case in which it was possible to reach the purulent accumulation through the vaginal summit, but restricted it to those cases encountered within the last twelve months which required abdominal section for the evacuation of a purulent accumulation within the abdominal cavity, representing the very worst features of abdominal, the worst variety of surgery. Some of them had grown desperate, and the operation was a *dernier resort*.

*Case I.** Mrs. G., a multipara, aged 35, was delivered at term; in two weeks or earlier, fever set in which did not yield to quinine. Two weeks later I saw the case, and found a large but circumscribed swelling on the left side, too

* The first five cases of this list have been included in a report of "Recent Abdominal Work" sent out some three months since. The last five have been done quite recently, some of them within the last few weeks. Some remarks at the close of this article are also taken from that report.

high to be felt at the vaginal vault. Diagnosed suppuration. A few days later an incision was made, a pint or more of pus was evacuated, and a drainage tube was put in. Although reduced to an extreme she entirely recovered, and is in all respects well.

Case II. I first saw Mrs. C., multipara, aged 27 years, on the 24th of last July. One month previously she had been delivered of a seven months dead child. Three days after labor fever set in, which had continued up to the time I saw her.

Associated with this fever there was a circumscribed swelling in the left side, accompanied by great pain. She was weak, and we prepared for an operation that afternoon. In the meantime she was carried to St. Joseph's Hospital and the operation was done there.

We cautiously opened the abdomen over the swelling into the pus cavity, took advantage of adhesion, evacuated and put in a drainage tube. She uninterruptedly got well.

Case III. Mrs. P., a primipara, aged 24, had been a sufferer from pelvic inflammation and its results for several months, dating from the birth of her first and only child. This inflammation had already resulted in suppuration, and the surgeon in attendance had made openings through the vaginal vault and abdominal parietes into the sac of pus, which at different times had pointed at these sites. There was also an opening into the bladder from the pus cavity from perforation by the pus. There had also been an opening made by the surgeon into the base of the bladder through the anterior vaginal wall.

At this stage, on November 13, 1889, I, at the instigation of her physician, took charge of her case. Her pulse was 133, her temperature was 103°; there was delirium from uremic poisoning, incident to absorption of the urine in the abdomen.

It was evident that the first thing to be done was to dilate the opening into the sac, and draw a tube through the abdominal incision and out through the opening in the vaginal vault. We were enabled to evacuate the pus, irrigate the abdomen, or that portion taken up by the sac, and in a short while clear up

the delirium and materially improve the condition of the patient. After treatment in this way for some weeks, the opening from the bladder into the abdomen was healed, and all urine dribbled away through the hole in the base of the bladder. Before a great while this patient was sitting up, and in the course of a few months was going around, though far from being cured. The pains in the abdomen continued in their accustomed severity. An examination by the bimanual method showed that there were adhesions, a result of the inflammation through which she had passed. An exploratory incision was offered her with the idea, that if compatible with a reasonable safety, of removing the diseased appendages which had likely produced her trouble, and were still offending her. She accepted the proposition. On May 23d, we opened the abdomen, but found intestines, uterus and appendages so matted together that we did not think it very likely that she would recover if this mass was broken up.

The abdomen was washed out and closed. She was up again in three weeks; has since materially improved; visited her relatives in Canada, and is now attending to her household duties.

This case illustrates the value of the palliative expectant treatment, and the folly of abandoning treatment because you are foiled in your effort to accomplish what seems to be the proper thing. Lawson Tait thinks an exploratory operation frequently results in good that cannot be explained. Should she suffer too greatly, we would advise the unraveling of this mass of intestines and removing the appendages, although the risk would be great.

Case IV. Mrs. F., aged 24, came to me September 28th, last. She was married one year ago. Her abdomen was quite large. The history was that one year ago an enlargement presented rather to the left of the median line, and has grown rapidly; the diagnosis was ovarian tumor. The pulse was high, indicating that suppuration was going on. She was prepared for an operation, and on October 1st the usual incision was made. The tumor was adherent to the whole front of the abdomen. This was forcibly separated by the hand, the trocar plunged in, and a large quantity of purulent fluid

drawn off. This left the solid portion, which was too large to be removed. The incision was extended to the ensiform cartilage, and the solid portion of the tumor, which alone weighed 18 lbs. after being separated from its attachments, was lifted out, making with the fluid portion, 40 lbs. in weight. There was quite a lot of pus in the bottom of the sac. Notwithstanding the pulse was more than 100 before operation and 120 for several days thereafter, she made an uninterrupted recovery. I was permitted to examine this case not long since, and am gratified to report her in all respects well.

Case V. Mrs. S., aged 23, a Jewess of small stature, has been married three years—no child. Upon examination we diagnosed an ovarian tumor of small size, which was wedged in between uterus and rectum. Each morning at the time of the evacuation of the bowels, and for several hours afterward, there was excruciating pain. She was very much reduced in flesh and was decidedly anemic. The pulse was also high—above 90. Under the influence of local treatment, tonics and massage, we, in six weeks, had her much improved for the operation of removal of this tumor. On the 9th of this month, the abdomen was opened and a tumor found somewhat larger than anticipated. Upon attempting its removal after loosening its adhesions, to our dismay it ruptured, liberating a pint or two of pus into the abdominal cavity among the intestines. Realizing the great danger from this unfortunate accident, which was not preventable owing to the thinness and rottenness of the walls of the tumor, we removed this pus as rapidly as possible by means of sponges and tied off the pedicle. We hastened to make the abdomen clean by repeated irrigations. We had but few patients to progress better than this one has done. She returned to her home on December 7th last in good condition, and subsequent information is to the effect that she is perfectly cured.

Case VI. Mrs. C. was brought to me on the 7th of last December suffering from a nodular abdominal tumor the size of a cocoanut or larger. The symptoms and history pointed to a tubercular peritonitis. An exploratory incision was made and a pocket of pus evacuated. The tumor embraced the peritoneum and was likely omental in its origin and could not be removed.

She remained under treatment for two months. During this time there were three or four collections of pus evacuated and the cavities packed with gauze. They healed. She then went to her home. She is somewhat better, but is still confined to her bed. An occasional abscess forms which her physician evacuates. It is probable she may finally recover.*

Case VII. Mrs. M. was on January 5th referred to me by her physician, who ten days before had aspirated a large suppurating ovarian cyst. The cyst had again refilled and was greatly disturbing and depressing her. An opening was made below the umbilicus. Owing to almost universal adhesions the cyst wall was stitched to the abdominal, thoroughly washed out, and a drainage tube put in. The cavity which was washed out twice daily held about one-half gallon. This diminished beautifully from day to day until it (at the expiration of ten days) held only a few ounces. She now was seized with a morbid desire to go home, and all argument for her to remain was useless. She returned a few days ago all healed with the exception of a sinus extending just under the skin to the depth of two inches. I advised her to remain two weeks, allowing me to split up this sinus and pack with gauze, which would almost certainly cure her. She would not consent to remain from her home more than one week, so we could not agree. She has gained twenty pounds, is able to attend to her household duties, boss the old man and the farm, and is in all respects well save the sinus just alluded to.

This sinus may heal in the course of a few months without anything being done beyond a cleansing daily.

Case VIII. Mrs. S., aged 36, was delivered of twins eight weeks prior to her admission into the Sanitarium, which was March 13th. Four days after delivery she had a chill followed by high fevers, rigors, sweating, etc., which told that the pelvic inflammation was approaching suppuration.

This was followed by a discharge of pus through the fallopian tube and womb. When she entered the Sanitarium she was brought on a litter, was exhausted by the high temperature and suppuration which she had been experiencing for near two months, her temperature was still registering high

* Recently we have still more encouraging reports. She is up.

in the afternoon, 104-5°. For several days the interior of the uterus was cleansed by irrigation, but the real seat of the suppuration not being reached the temperature kept up, and her husband, who was quite an intelligent and progressive physician, readily agreed to a laparotomy. The abdomen was opened not in the median line but to the left, above the supposed adhesions, in order that we might determine whether or not they were sufficient to allow of making an opening into the suppurating mass.

We found the adhesions insufficient. The incision was extended downward, the adhesions were broken up, in this location, preparatory to removing that whole mass, but other adhesions were found to the region of the pubes, to the womb, and the bladder, and to the intestines, so formidable that I was of the opinion that the hemorrhage would be sufficient to kill her in her weakened and anemic condition. It was also clear to me that the mass was not draining into the womb because it had gravitated too low, while the woman was on her back.

It not being safe to remove the whole mass, the next best and safest thing to be done was to so place this mass that its suppurating interior might drain through the fallopian tube into the womb.

We accordingly stitched it into the lower portion of the abdominal incision, securing its firm attachment with silk to the parietal peritoneum. Then after closing the incision above, putting in a glass drainage tube into the peritoneal cavity, and packing with gauze down to the mass, we felt that if the case was not cured there was but little danger from the operation, and in the event that it should ever give trouble again, it would be so adherent to the abdominal wall as to give the greater chance of pus coming to the surface. The packing was changed every twenty-four or forty-eight hours. The stitches were removed on the eighth day.

Two weeks ago she returned to her home, not having had a temperature of more than 100°, and this for only short intervals on the afternoons of the first few days after the operation. Her husband writes me she is regaining her strength and flesh, and is in all other respects well.

Case IX. Mrs. L., aged 40, presented herself on the 23d of last month with a large tumor. The abdomen was opened on the next day. It was found to be a multilocular ovarian cyst filled with colloid contents. Some of these cysts had undergone suppuration. These walls containing pus were so thin that when the adhesions were separated the pus flooded the abdominal cavity. The abdomen was washed for twenty or thirty minutes with warm water and stitched up. In spite of an attack of la grippe which brought on bronchitis and pneumonia, she returned to her home last Sunday cured.

Case X. Mrs. H., aged 32. On the 15th of this month I went to Durant, Miss., to see in consultation a lady who had been quite ill for more than three weeks. Her disease was general peritonitis. The suffering was so great that one-half grain of morphine had to be administered every two or three hours. There were bands of adhesions around the rectum at the sigmoid flexure. No movement of the bowels had taken place for two weeks—not even gas having escaped in this length of time. The drum-like distention was so great that respiration was interfered with to no inconsiderable degree.

The pulse, temperature and pallor indicated that unless something be done the end was not far distant.

I proposed a laparotomy and drainage of the peritoneal cavity. The proposition was accepted. An opening was made midway between the umbilicus and pubes, large enough to introduce two fingers, break up the band contracting the gut, and guide a Sims hard rubber tube down in behind the fundus in Douglas *cul-de-sac*. This tube was flushed at intervals of a few hours with warm water. In a few hours gas escaped through the rectum. The intervals grew longer between the doses of morphine. By the next day she was in a condition to stand an effort at removal of the fecal impaction. In one or two more days this was gotten rid of. With the exception of an inflammation of the parotid glands, due to the septic infection which had already taken place, her recovery has been steady. Her physician writes me she is now out of danger, and will soon be able to sit up.*

There are three points connected with the case: 1st, the breaking up of the adhesions; 2d, the draining of the peritoneal cavity as any other cavity; 3d, the influence of the atmospheric pressure directly upon the bowels in overcoming or counteracting the gas within the bowels. The latter point has, so far as I have heard, never been made.

* Late advices are that she is entirely cured.

SUMMARY OF CASES.

No.	NAME	Age	MARRIED OR SINGLE	PATHOLOGICAL CONDITION	OPERATION	ADHESION	DRAINAGE	WHERE OPERATION WAS DONE	RECOVERY OR DEATH	EFFECT OF OPERATION	REMARKS
1	Mrs. G.	35	Married.	Perimetritic abscess follow- ing delivery.	Abdominal sec- tion and drain- age. Sac not re- moved.	Firm	Yes.	Residence	Recovered	Permanently cured.	She was a strong woman, a multipara, and had experi- enced no difficulty following delivery previous to this case. The cause was likely infection from nurse.
2	Mrs. C.	27	Married.	Perimetritic abscess follow- ing delivery.	Abdominal sec- tion and drain- age. Sac not re- moved.	Firm	Yes.	St. Joseph's Hospital	Recovered	Permanently cured.	Not strong, and had lump in the side after delivery two years before, evidently a threatened abscess, possibly an encysted one.
3	Mrs. P.	24	Married.	Diseased ap- pendages giving rise to peritonitis and abscess.	Abdominal sec- tion for abscess. Then again for removal of ap- pendages	Yes.	In first oper- ation only.	Residence	Recovered	Not fully cured, but able to do her household duties.	She had experienced great suffering for months before, as described in Case 3. The removal of appendages was not permitted, unless it was thought to be compatible with safety.
4	Mrs. F.	24	Married.	Ovarian polycystic tumor.	Abdominal sec- tion and removal of forty-pound tumor, contain- ing a large quan- tity of pus.	Extensive.	No.	Private Sanitarium	Recovered	Permanently cured.	The difficulties were that eighteen pounds of tumor were solid, so shaped and adhered that it was impossi- ble to remove it without opening the abdomen from ensiform cartilage to the symphysis pubes. The tumor weighed forty pounds.

5	Mrs. S.	23	Married.	Suppurating ovarian cyst.	Abdominal section and removal of cyst.	Yes.	Yes.	Private Sanitarium	Recovered	Permanently cured.	The cyst ruptured and liberated two pints pus into the abdominal cavity among the intestines. Sponged out pus. Very thorough irrigation for thirty minutes, which not only did away with danger from infection, but the patient being too degrees, diminished shock.
6	Mrs. C.	24	Married.	Tubercular peritonitis, with suppurating.	Abdominal section for evacuation of pus.	Yes.	Yes.	Private Sanitarium	Recovered	Probably ultimate recovery.	Has had pus evacuated several times, but is still confined to bed.
7	Mrs. M.	42	Married.	Suppurating ovarian cyst.	Abdominal section.	Very firm.	Yes.	Private Sanitarium	Recovered	Thought to be permanently cured.	Has gained twenty-five pounds and is attending to her accustomed duties.
8	Mrs. S.	36	Married.	Adherent suppurating tube.	Abdominal section.	Very firm.	Yes.	Private Sanitarium	Recovered	Cure unquestionable.	Has returned home and resumed her duties.
9	Mrs. L.	40	Married.	Suppurating ovarian cyst.	Abdominal section.	Numerous.	Yes.	Private Sanitarium	Recovered	Cure unquestionable.	Has returned home and resumed her duties.
10	Mrs. H.	32	Married.	Suppurative peritonitis.	Abdominal section.	Yes.	Yes.	Residence in country	Recovered	Cure permanent.	Has been up some weeks and resumed her house-keeping.

Remarks. The fifth case was one in which there was great danger of rupture, which might have occurred at any moment. The cyst wall could be torn like wet paper, and might have given way on slight exertion, such as getting in or out of her carriage.

It is impossible to estimate or appreciate such dangers as this lady was daily exposed to.

In this report I have sought not to burden the Society with methods, technique, and details. This can be brought out as the member may be disposed.

The greatest conservatism compatible with thoroughness has been observed.

In cases 1, 2, 8 and 6, simply the pus was evacuated; it would have been far from conservatism to have attempted a removal of the sac in these cases, whilst in cases 4, 5, and 9, it would have been quite as unsurgical as dangerous to let it remain, although there were some adhesions.

In cases 1, 2, 3, 6, 7, 8 and 10, neither ovary was removed.

In cases 4, 5 and 9, only one of these organs was sacrificed.

Each case has a healthy ovary left, and some of them two. I see no reason why they may not in the future bear children.

The necessity for the removal of the sound ovary is not required in ovariectomy, as some operators claim it is (though I doubt it) in oophorectomy.

In these days of brilliant abdominal surgery, the operator is too frequently carried beyond the true conservative point, and many a life has been sacrificed in removing or attempting to remove a suppurating cyst or sac, when if it had only been properly drained the patient could have been saved and the cure quite as satisfactory. I would say to the young

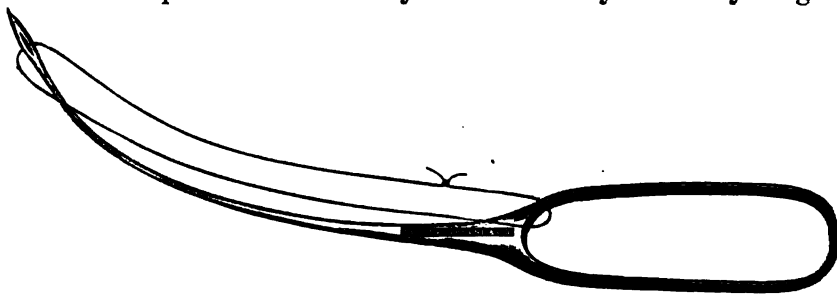


Fig. 1

operator, go slow. But on the other hand there is nothing like thoroughness of removal of every vestige of the sac when the peritoneal cavity cannot be shut off from the cavity of suppuration. Here radicalism is true conservatism. I should like in this connection to call attention to the use of sterilized absorbent gauze as a valuable addition to the drainage tube in keeping septic material from the peritoneum. In these operations common sense has predominated. The greatest simplicity in methods has been preserved; boiled water alone has been used for irrigation inside the abdomen.

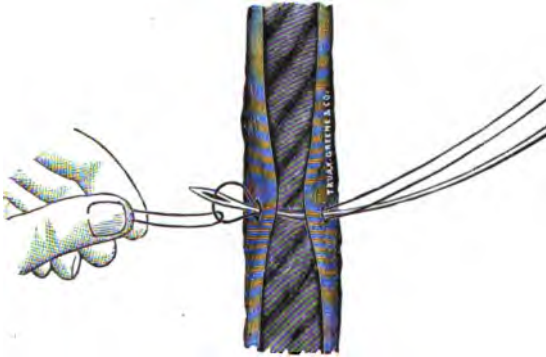


Fig. 2

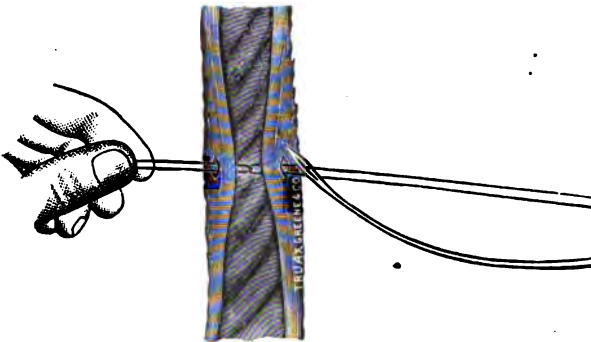


Fig. 3

A long needle invented by myself for putting in the stitches through both sides at once, has been used. I am satisfied that in closing a long incision, ten, twenty, or thirty minutes can be saved. Time, at this juncture, is very valuable in obviating as far as possible, the on-coming shock. The needle loosely

threaded (Fig 1) is pushed down through from the side next the operator; then with the aid of the assistant, up through the opposite side, carefully including skin, fascia and peritoneum, as with any other needle. Upon withdrawing it $\frac{1}{4}$ inch the thread will slack and open, as in Fig. 2. A suture is placed in the loop (also shown in Fig. 2), by the assistant. The needle is then quickly withdrawn, bringing with it the suture, as shown in Fig. 3. This needle differs from all others in having a length and curve adapted to putting in a stitch through both sides of the abdominal walls at one stroke or movement. All the sutures, one after another in rapid succession, are introduced in the manner described. The handle is large, admitting of a firm grasp. Whilst it is intended for the closure of the incision of a laparotomy, it is well adapted for putting in the stitches after amputation, and the suturing of large incised wounds generally. It is an excellent pedicle needle adapted to all size ligatures. The author has not for more than twelve months used any other needle in abdominal work.*

With the exception of the spray, the most thorough antiseptis outside, and asepsis inside the abdomen, has been observed.

It is perhaps worth stating that antiseptis, with me, is only valuable as it conduces to asepsis. I believe in the use of the spray before the operation, not that the carbolic acid in it is of value in killing germs, not that it is so important to kill germs; not this at all—but I do believe by increasing the humidity of the atmosphere, it will cause the organic matter floating in the room to settle down, and there is consequently less likelihood of it being deposited in the open wound.

It is gratifying to me to relate the fact that I have never had a case of peritonitis to follow an abdominal operation, nor has a ventral hernia ever ensued.

MANUAL OF CHILDBED NURSING. By Charles Jewett, A.M., M.D., Prof. of Obstetrics and Diseases of Children, at the Long Island College Hospital. E. R. Pelton, N. Y., 1891.

In forty pages the author has comprehended clearly and concisely the essentials for the lying-in nurse, and we can confidently recommend the Manual to those whose mission it is to care for the parturient mother and her babe. A. B. H.

* It is made and kept in stock by Chas. Truax & Co. of Chicago.

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

Arterio-venous Aneurism of the Orbit.*

Mr. Richard Williams (Liverpool) reported the case of a youth, aged 14, who had been kicked by a horse on the left temple. The left eye had been "swollen out" since the accident, and the swelling was gradually increasing. At the upper and inner angle of the orbit there was an oval and pulsating swelling, about the size of a small walnut. Ligature of the common carotid was performed and the pulsation ceased, but returned in some degree later, and then gradually subsided, until one day while weeding in the garden the eye felt suddenly painful, and the lids became swollen. Since then, the pulsation had entirely ceased; the appearance and vision of the eye became normal, all that remained being slight ptosis and contraction of the pupil. Mr. Williams cited other cases in which compression or ligature of the common carotid had resulted in recovery, and expressed his opinion that this latter was the most satisfactory method of treatment.

Mr. Wherry (Cambridge) had ligatured the carotid in a lad with arterio-venous aneurism appearing after fracture of the base of the skull, with double ptosis and optic neuritis. The operation was followed by very serious symptoms, coma lasting fourteen days, hemiplegia on the side opposite to the ligatured vessel, and almost complete loss of reason. He thought that some thrombosis had occurred at the time of the accident, and had extended rapidly when the blood supply of the brain was curtailed by ligature of the carotid.

* Ophthalmological Society of the United Kingdom.

Mr. Frost mentioned a case under his own care in which the condition had remained stationary for some years, and the man was able to follow his occupation as a wheelwright. He deprecated early interference in such cases, as a considerable number of spontaneous recoveries were on record.

Dr. Mules (Manchester) mentioned a case in which intermittent pressure on the carotid was applied by the patient himself.

Mr. Charles Lee (Liverpool) said he had had the advantage of seeing both the cases mentioned by Mr. Richard Williams, and he was an advocate for early operation. In one of the cases mentioned, operation had been postponed. Severe hemorrhage occurred from dilated veins of the eye on the affected side, and the sight was lost.

Mr. Silcock mentioned a case he had shown to the Society some years ago ; no operation had been performed, and the man was now in practically the same condition.

Mr. Tatham Thompson (Cardiff) referred to three cases of arterio-venous aneurism of the orbit. One, a girl under 10, perforated the orbit by falling on a knitting needle. The aneurism which ensued was completely cured by electrolysis. In the second case, also in a child, the orbit was penetrated by the rib of an umbrella. In the third, a woman aged 40, during a severe paroxysm of vomiting in pregnancy, experienced the sensation of a pistol crack in the eye, and ever after heard a buzzing noise. The *bruit* could be stopped by pressure on the carotid.

Mr. Cross (Bristol) referred to a case in a child, 15 months of age, in which the symptoms appeared after a fall. No operation was performed. Recent rapid increase in the symptoms made it doubtful if the case was not one of new growth.

Ophthalmic Review.

THE Cincinnati Sanitarium has been in successful operation for seventeen years as a private hospital for the insane. Cottage for nervous invalids, opium habit, etc. Charges reasonable. See adv.

The Memphis Journal of the Medical Sciences.

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Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this. Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting. All matter must be in our hands on the tenth of the month preceding its publication. The JOURNAL will be issued about the fifth of each month. All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

WM. KRAUSS, M.D., Business Manager.

Memphis, Tenn.

SANITATION AND INSPECTORS.—The proposition to have a State sanitary inspector, while a good one, and backed by precedent in other States, is secondary to other considerations in connection with efficient sanitation. The field of usefulness of such an office is necessarily very limited, and his work is hampered by many obstacles. He will lack the one important qualification of familiarity with premises on account of the very large territory he has to cover. This is absolutely essential for efficient inspection. Many hygienic defects are of a latent character, and overlooked by one who cannot inspect repeatedly at short intervals. This brings us to another important obstacle to efficiency: During the six months or more between a State inspector's visits, defects may have existed weeks and months. All that a State inspector can accomplish is to have himself shown around by the local inspectors and then make a general report to the State Board.

Those who have had to deal with the practical enforcement of sanitary laws know that there are a number of intelligent and well-to-do people in each community who are never happier than when they appear to answer a charge against them for violating some health ordinance. A still larger number of citizens violate them from ignorance or negligence. Sanitation, like charity, should begin at home. What is needed is to embody the study of hygiene in the regular school curriculum. Next to the "three R's," it is certainly the most

important thing for people who live in communities to be thoroughly educated in. This proposition, though slow in returns, cannot be too persistently urged upon School Commissioners for adoption. Right here we feel like gently whispering something to some medical colleges, while admitting that they *do* have "hygiene" on their *curriculum*.

MESSRS. J. B. LIPPINCOTT COMPANY announce that they will publish, about September 1st, the eighth edition of Wood's Therapeutics; its Principles and Practice; rearranged, rewritten and enlarged. Scarcely three years have elapsed since the appearance of the seventh edition, yet the preparation of the present volume has necessitated a careful study by its author of more than seven hundred memoirs. In the present edition no revolutionary changes have been made comparable to those of the seventh revision, but great care has been exercised to see that every portion of the work has been thoroughly revised, and a number of the articles have been completely rewritten, while some new drugs have been noticed. Among those portions of the book which are practically new may be mentioned, as important, the whole subject of Anesthetics, the articles upon Cocaine, Strophanthus, Caffeine, Antipyrin, Antifebrin, Phenacetin, Hydrastine, Paraldehyd, Lead-Poisoning, etc. Among the absolutely new articles may be mentioned Sulphonal, Chloralamid, Aristol, and others.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.—This is obtainable, at any time, by a member of any State or local medical society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Association, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own society, signed by the President and Secretary of said society, with five dollars for annual dues. Attendance as a delegate at an annual meeting of the Association is not necessary in order to obtain membership. On receipt of the above amount the weekly Journal of the Association will be forwarded regularly.

PERSONAL.—Dr. J. L. Minor, editor of this journal, has entirely recovered from his protracted illness, and is at work again with renewed health and vigor.

THE Session of the Memphis Hospital Medical College will open Monday, October 26th, in place of the 30th, as stated in the announcement.

DR. S. A. ROGERS has removed his offices from Madison st. to a suite of rooms on the corner of Main and Union sts., Memphis, Tenn.

"GARROD SPA" is a concentrated effervescent lithia water manufactured by the eminent chemist, Dr. Enno Sander of St. Louis. It is uniform in composition and stronger than any natural lithia water, and is a most palatable table water. Literature can be had upon application.

DR. J. L. MINOR has removed his offices from the Gayoso Hotel to a suite of rooms in the Randolph Building, corner Main and Beale sts., Memphis, Tenn.

Dr. H. C. Rogers of this city will locate in Hot Springs by October 1st. The Doctor has a host of friends here who wish him well in his new field of labors. The JOURNAL wishes him the success he so well deserves, and recommends him to the better element of the profession at Hot Springs.

The never-tiring representative of a Louisville firm wended his way into our office and presented us with the most widely indicated alterative tonic yet offered. After apologizing for giving us a lecture on the "Activity of Iron, Arsenic and Mercury Combined," he wended his way on to the next office feeling satisfied his Three Chlorides Elixir will certainly be prescribed—and it certainly will.

READING NOTICES.

CAPON SPRINGS WATER is aperient, tonic, diuretic. Dr. Jno. H. Janeway writes: "The results of my investigations convinced me that the estimate put upon their remedial powers has not been too high, but decidedly not high enough." Can be had of T. P. Fortune & Co.

THE Diagnostician. This is pre-eminently the practicing physician's microscope. Powers range from 90-600 diameters. Write for circulars and special easy terms to Aloe & Co., St. Louis.

VAN VLEET & Co. are the most reliable drug jobbers in the city. Country practitioners and those about to engage in the drug business can be completely fitted out on short notice. See adv.

WRITE to Health Restorative Co. for samples of their preparations. Febricide is possessed of great curative power in malarial affections, and all diseases of which fever is an accompaniment. Try it.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain, however. Robinson's Wine Coca (see adv.) we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of cocaine being always determined by careful assay.

PHYSICIANS who have tested the virtue of Zymocide (Antiseptine) in their practice, pronounce it a remedy par excellence for cure of leucorrhea, and catarrh of the nasal organs, stomach or bladder. In all diseases of the mucous surfaces, or whenever a non-toxic, antiseptic and detergent preparation is required you should give Zymocide (Antiseptine) a trial. It is manufactured by Reed & Carnrick of New York.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., OCTOBER, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY
B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

ADDRESS ON THE TREATMENT OF CONSUMPTION.

BY WILLIAM VICARY SNOW, M.D.

GENTLEMEN—On behalf of my medical brethren resident in Bournemouth, as President of this Section, I have a pleasant duty to perform, to give a most hearty welcome to our foreign guests and all members of the British Medical Association on this the first visit to our town; allow me also to thank the Council of the British Medical Association for the honor conferred in allowing me to address you from the chair of this meeting.

In consequence of our more accurate knowledge of disease, and especially of those affections attended by febrile phenomena, since the introduction of the clinical thermometer, much progress has been made in therapeutics. We have been able more correctly to estimate the action of remedies, not only in health but in disease, and hence treatment has become more scientific and rational. It is not, however, too much to expect that the greatest triumphs of the future may arise from the new study of animal chemistry and bacteriological research.

In specific disease we have learned that it is not only the micro-organisms present which have to be considered, but that it is probable the chemical changes they set up play a most important part in causing the phenomena of disease. It

is well established that certain zymogenic organisms give rise to a chemical product inimical to their own growth, and when of a certain strength sufficient to stop the process. The mortality from consumption is now in England not more than one-half of that existing during the first fifty years of this century, while the death-rate from this disease has increased in many countries. This grand result has been obtained by improved methods of treatment, sanitation, improvement in the workshops and dwellings of the laboring population, and especially by the subsoil drainage of towns. In the year 1882 the tubercle bacillus was discovered, and it was proved that consumption could be produced in animals by the inoculation of a pure cultivation of it. Briefly it has been demonstrated that without the bacillus no lung affection can be considered consumption. True, however, as this statement is, to my mind it is not sufficient to account for the production of the disease. The bacillus and its spore have great vitality, and must be, as a rule, present in our houses, and especially in our hospitals, for consumption. Further, an appreciable percentage of animals slaughtered for food are said to be tuberculous, nor is the bacillus destroyed by imperfect cooking. Granted that it has been proved that this disease is occasionally produced by contagion, yet we do not find those employed in our consumptive hospitals more liable to infection than the ordinary population. I must hold, then, that the bulk of mankind are proof against the attacks of the bacillus, and that it can only fasten on the tissues of those weakened by bad hygienic or climatic conditions, repeated lung congestions, or hereditary taint. So far no drug has been proved capable of destroying in the human body the tubercle bacillus, or arresting its development by action on the diseased tissues in which it finds its pabulum. For years I have used carbolic and other inhalants, and found decided benefit arise in soothing cough and other symptoms, but no evidence could I discover of their exercising any influence on the growth of bacilli. In cultures, a moderate advance above the natural heat of the body prevents the growth of the bacillus, and it was assumed that consumption might be cured by the inhalation of heated air; but in practice it was found impossible to raise suffi-

ciently the temperature of the air in the lungs, and this treatment has now fallen almost into oblivion. The insufflation of sulphuretted hydrogen into the intestines has entirely failed, nor has any drug yet been proved to be able to influence the growth of the bacillus when injected subcutaneously, but trials are now being made in this direction.

At the International Medical Congress last year, it was announced by Koch that a remedy had been discovered which conferred on the animals experimented on an immunity against inoculation by the tubercle bacillus, and which would arrest tuberculous disease, and that the remedy would be tried on human beings. In spite of all precautions exaggerated reports of the value of the remedy were propagated, and the public impatience, and, it is hinted, government pressure, induced him to make a partial disclosure of the nature of the remedy and the method of its use before any sufficient experience had been obtained of its effects on the human body.

When this discovery was first announced it was compared to that of vaccination and Pasteur's treatment for hydrophobia, but several very marked distinguishing points induced most reflective minds not to anticipate equally good results.

Jenner was dealing with smallpox, a disease as a rule occurring only once during life, and rendered the system incapable of an attack by the substitution of a form of the same disease, weakened by transmission through the cow. In hydrophobia the remedy is introduced into the system after the contagion, but before the symptoms of the disease have manifested themselves. In Koch's method the remedy is not applied until after the disease is established, and can only arrest its further progress, but cannot repair the damage already effected.

The public excitement was increased by a not unnatural mistake of the daily press in calling the remedy a "cure" for consumption, instead of a "new remedy" for the treatment of that affection. The medical profession were also greatly impressed by the immediate beneficial effects produced on some surgical affections, and notably on lupus; sufficient time had not then elapsed to prove that the results were not always of a permanent character. Hence, even before the manufact-

ure was perfected (and I have reason to believe that the first tuberculin produced more serious symptoms than supplies subsequently sent on), a treatment requiring the greatest care was initiated in the middle of the most severe winter of the century, and mainly in the foggy, crowded, and in many instances insanitary large cities of Europe.

One result only could follow; the unreasoning belief of the multitude in a new remedy was disappointed, cases of mischief from its use were reported, statements against it, often, I believe, beyond what science would justify, were made, and a danger existed, and still exists, that a discovery, which at any rate merits a fair trial, may be discredited and even consigned to oblivion from the rash way in which it was introduced. In consumptive people, even when not much tissue is affected, a small injection of tuberculin—as little as 0.002 cubic centimeter—may cause intense febrile reaction, and from the frequency with which stained expectoration has been noted, we may infer that active congestion is set up wherever tuberculous tissue exists, whether in the lungs, kidney or brain membranes; hence the danger of its use where complications either exist or, as in the very young, may be feared. Would any physician, if he had the choice, wish to treat a case of pulmonary phthisis in the air of a large city during the time of smoky fogs, much less put him on treatment which, for the time at least, must produce considerable febrile reaction? It appears to me that, instead of in Berlin, the treatment should have been initiated in good country air, and when completed the patients should have been removed to an approved climate.

Before the injection of tuberculin can be adopted as a recognized method of treatment for consumption, the following question must be answered in the affirmative: Can this treatment be carried on with reasonable safety? In very weakly patients and those with extensive and advanced disease, such a treatment must be attended with risk, and it is not surprising to hear that fatal results have directly followed the injection of tuberculin. The ten cases treated at Ventnor, the similar number treated in the Sanatorium, coupled with the experience of Dr. Coghill at Ventnor in private practice and

my own, inclines me to believe that tuberculin may be safely used in cases judiciously selected, under favorable circumstances. I will now, as briefly as possible, call your attention to the only three cases I treated in the Sanatorium in the year 1890, and I do so because I have been able to trace the results over a period of seven months from the first injection.

E. M. was admitted on November 6, 1890. She had lost three sisters from consumption and other relatives, had been ill more or less for three years, and had had one attack of hemoptysis. Her afternoon temperature ranged from 99° to 100°. The expectoration measured 3ss, was muco-purulent, and contained bacilli. The resonance was imperfect at the apex of the right lung, and the respiration bronchial; the left lung was affected to a less extent. The treatment was commenced on December 6, and completed on January 30. Twenty injections in all were given. The patient had lost four pounds in weight in the previous fortnight, and lost six pounds more during the first four weeks of treatment. On January 30 the patient had very little cough or expectoration; did not react to 0.01 cubic centimeter, but bacilli were still present. She continued to improve steadily, and left the hospital April 21, having lost all cough and expectoration, and gained 12 pounds in weight from the lowest point. Her temperature was normal, and, on examination, the physical signs were found to have improved. The last expectoration obtained contained no bacilli. She had been previously living at home without occupation; she now writes, July 2, that she has remained perfectly well, and has entered domestic service as nurse. As the patient was losing weight before, and for a month after, the commencement of the treatment, and had an exceptionally bad family history, and, as no symptoms of relapse have been observed up to seven months from the commencement of treatment, I think we may fairly claim that the disease has been arrested; no case of consumption can be considered cured until all symptoms have ceased for two years.

A. D. (dressmaker), 18. Admitted November 3. Duration of illness nine months. A sister consumptive. Had gained two pounds in weight before treatment commenced on Decem-

ber 6. Beyond slight dullness and prolonged expiration at the left apex, no physical signs existed; the expectoration was scanty, and contained a few bacilli; evening temperature, 99.8°. Eighteen injections were given, but in consequence of the severity of the reactions (104.8°) the amount was not carried above 0.005 cubic centimeter.

January 30. Patient feels perfectly well; has no expectoration or cough, and has gained five pounds. Physical signs unchanged. She continued to improve, and gained from the commencement of the treatment 12 pounds, and was discharged April 22. She writes, July 2: "I think I am about the same weight as when I came home, having neither cough nor expectoration, nor do I perspire at night; I am, also, able to follow my employment without difficulty." You will observe that tolerance of the tuberculin could not be established, and that the amount of the disease was very slight. It is quite possible that to the change of climate and rest from work the improvement is due.

W. H. (footman), æt. 23. Three years before pleurisy with effusion, expectoration 3ss.; muco-purulent, containing numerous bacilli. Considerable consolidation existed at the apex of the right lung, weak breathing was noted at the base, and dry friction in the right axilla. The left lung was only slightly affected at the apex. Sixteen injections were given from December 4, till January 17, and then discontinued in consequence of a very severe attack of dyspnea. Three times the expectoration was stained with blood, six times dyspnea was noted. The febrile reactions were moderate. The treatment was resumed with a fresh supply of tuberculin on February 17, and continued until March 19; no reaction followed the use of 0.01 cubic centimeter. The patient was discharged April 9. He was feeling much better. The percussion note had improved and the breathing became more vesicular. The temperature was normal and the cough and expectoration slight. No bacilli could be found in the expectoration. He gained four pounds in weight before the treatment was resumed, and during it lost three pounds. He shall speak for himself as to his after-progress. In a letter to the Lady Superintendent, June 12, he says:

"MADAM—I am very pleased to tell you I have improved in health very much since I left the Sanatorium. I have gained in weight seven pounds, and I have been in work a fortnight now, and able to do it with pleasure, and feel it only right for me to let you know the good I got at the Sanatorium through Dr. Koch's treatment. I have hardly any cough, and I get no pains at all. I am pleased to say I am going to the Cape in July, so as to get out of England before the winter comes on, as my doctor thinks the fog might strain my chest too much. I am pleased to tell you he gave me a good account of myself; he said of all the cases he had seen, mine was the best."

Subsequent reports confirm the improvement in this case.

I will now allude to the result of the only three cases I ventured to treat after softening had taken place.

E. M., 44, had a slight attack of hemoptysis five years since; softening had commenced at both apices. First injection February 6, 1891; discharged May 12. This patient improved in strength, and gained in weight 10 pounds, but I could detect no signs of improvement in the lung condition.

E. K., 22. Two months since a slight attack of hemoptysis. In this case also softening had commenced on both sides, and a small cavity existed at the right apex. First injection February 24; discharged June 15; gain in weight 10 pounds. The improvement in the physical signs was slight. Numerous bacilli were found in the sputum.

These two patients, when admitted, were almost normal in temperature, and I am inclined to think much of the improvement in weight was due to rest from employment, better food and change of climate. I am fortified in my opinion by the result of the third case.

C. H., 21, had been resident in Bournemouth, and under observation two years, and had done clerical work at the Sanatorium. The treatment was carried out at his home without difficulty, although before and when he first came to Bournemouth, hemoptysis had been a feature in his case. The physical signs improved, but he did not gain weight.

The treatment was carried out with the antiseptic precautions recommended, and no evil consequences followed the

punctures. The patients were placed under the best hygienic conditions possible—kept in bed during the febrile reactions, and fed mainly on a milk diet. It may be asked, What unpleasant symptoms were observed, and is previous hemoptysis a bar to the treatment? Although stained expectoration was frequently noted, it was never sufficient to cause anxiety, and never more than a temporary intermission of the treatment. Pain in the lungs, and especially where old pleurisy had existed, often occurred; in one case severe dyspnea was observed. I have already mentioned that it did not recur when the treatment was continued with the fresh tuberculin.

Limits of space debar me from entering on the pathology of the remedial effects of the treatment, and I am pleased to tell you I have had no opportunity of studying post-mortem appearances.

Stimulated by Koch's discovery, the inventive faculty of the profession has been at work, and, as I write, new methods of treatment are under trial, especially in Paris. May they be tried under more auspicious circumstances, and not prematurely introduced. Whether this discovery be a success or a failure, I feel that a line has been indicated, pregnant with grand results, not only for the arrest of consumption, but also for the treatment of other diseases.—*Brit. Med. Jour.*

THE CARDIAC COMPLICATIONS OF DIPHTHERIA.

WM. C. DABNEY, M.D., CHARLOTTESVILLE, VA.*

There are few diseases, if any, which exert so powerful an influence on the action of the heart as diphtheria, and in many cases the cardiac symptoms occur at a time when the other symptoms are passing away or have entirely disappeared.

I propose to describe briefly in this paper, these cardiac complications as I have met with them in my own practice, and especially one to which but little reference is made in works treating of diphtheria, and which is apparently of rather rare occurrence, and of the most serious significance.

The cardiac complications of diphtheria usually occur in one of three forms:

* Va. Med. Monthly, Oct., '91.

1. A rapid and feeble pulse, often irregular in force and rhythm.

2. A feeble pulse, which becomes progressively slower till the beats number less than *forty*, sometimes less than *thirty* to the minute.

3. A sudden failure of the heart when all other alarming symptoms have disappeared.

I do not propose to include those cases in which endocarditis occurs in connection with diphtheria.

The *first form* of cardiac trouble which I have mentioned is rather a symptom than a complication, as it is present in a great majority of the cases. It is clearly due, for the most part, to the diagnostic changes which occur in the cardiac muscle in this disease, and to the general prostration accompanying it.

Nor is it necessary, as was formerly supposed, for the temperature to be high for such degenerative changes to occur. In the severest cases of this disease the body heat is often but little elevated, and the absence of fever, therefore, does not furnish any guarantee that serious heart complications will not occur.

A further cause of this heart weakness is found, perhaps, in the poisoning by the leucomaines generated by Löffler's bacillus.

The period of the disease at which cardiac weakness of this character occurs, depends, of course, upon the gravity of the affection in the individual case, and upon the vigor and resisting power of the patient. Though just here it may be said that there are few diseases in which previous good health is of so little assistance as in diphtheria—the most vigorous and robust children often succumbing with frightful rapidity. In some cases the heart prostration is often marked in less than forty-eight hours, and sometimes in less than twelve hours.

The *second form* of cardiac complication is much less common than the first, and seems to be more common in some epidemics than in others. It is rarely mentioned in books on diphtheria. My attention was first called to it by the late Dr. Alex. Harris—a very careful and accurate observer—during

an epidemic of the disease which occurred in Culpepper county, Va., about ten years ago.

In many cases which I have seen the earlier symptoms presented no special gravity, but after a week or ten days, when all false membrane had disappeared, and the patients seemed to be on the high road to recovery, the pulse, which had been quick and feeble, would gradually become slower without any marked improvement in force. There was a gradual diminution in the frequency of the pulse from day to day—sometimes even from hour to hour—until it fell to *forty* or even *thirty* beats per minute.

The only other symptoms noticeable in the cases were exhaustion and some degree of restlessness. In no case was there any paralysis of muscles, nor were there any other evidences of multiple neuritis. There was no irregularity of rhythm in the cases, as a rule, nor was irregularity in the force of the heart's beat as marked as in the first class of cardiac complications.

It is difficult to explain the slow and feeble pulse in this class of cases. It is not probable that it was due to any toxic action of the leucomaines, because no other evidences of severe poisoning were present; nor is it likely that it was caused by degenerative changes in the heart muscle itself, because such changes are of common occurrence in other of the acute infectious diseases—especially scarlet fever and typhoid fever; and yet such slow action of the heart has only been observed in diphtheria. It seems to me, in spite of the absence of other evidence of degenerative changes about the nerves, that the slow pulse in these cases is due to a degenerative change in the nerves connected with the heart; but I have been unable to obtain a post-mortem examination in any of the cases which I have seen, nor do I recall any autopsies made in similar cases by others.

The third form of cardiac complication, is that in which, after convalescence seems to have been fully established, death occurs suddenly from heart failure. In some of these cases the heart failure has occurred after unusual exertion or excitement, but sometimes it occurs during sleep. I recall distinctly the case of a little girl who was apparently entirely conva-

lescent from a moderately severe attack of diphtheria, and who had been playing about the house with the other children. Her mother put her to bed as usual, and was shocked to find an hour afterward that she was dead. No explanation of such cases has yet been furnished.

The cardiac complications of diphtheria have a most important bearing on the prognosis of this disease.

That a *rapid* and feeble pulse is of serious if not unfavorable significance is universally acknowledged : but it is far less ominous than a *slow* and feeble pulse. I do not recall a single instance in which recovery occurred when the pulse has fallen as low as *forty* to the minute : but as I am away from my records I may be mistaken about the exact figures ; certain I am, however, that of all the cardiac complications occurring in connection with diphtheria, except that in which the heart failure is immediately fatal, a slow pulse is the most serious.

In view of the gravity of the cardiac complications, *prophylaxis* is of the utmost importance, but, unfortunately, it is often of no avail.

Absolute quiet—confinement to bed and the avoidance of all excitement—is of the first importance even in mild cases, both as a prophylactic and remedial measure.

In January, 1888, I attended a girl 13 years old in a mild attack of diphtheria. The membrane disappeared from the fauces in four or five days, the exhaustion was not marked, and I was flattering myself that the case was approaching a favorable termination, when the pulse began to diminish in frequency. The child had been kept in bed throughout the attack, and had not been up since its commencement. The pulse gradually became slower and slower, and was very feeble. I urged upon her and her mother the necessity for absolute quiet in the recumbent position ; but one day when the pulse was a little over thirty to the minute, the child raised up in bed for some purpose and fell back dead.

It is impossible to tell the effect of any other prophylactic measures which may be used, because this form of heart failure is of rare occurrence at any rate.

The remedial treatment has been entirely unsatisfactory in

those cases where the pulse become slow. Strychnia, atropia, brandy, ammonia, ether, and the other cardiac stimulants and tonics, I have tried without the slightest benefit that I could perceive. Recovery would sometimes occur under any treatment, in the milder cases, and death invariably occurred in spite of all treatment in the severer ones.

The treatment of the disease—not the cardiac complications especially— which has seemed to me to give the best results, has been the free use of brandy, muriated tincture of iron, and bichloride of mercury. The pharynx is thoroughly sprayed every hour or two with a solution of menthol and boracic acid in alcohol and water, and then the patient is given the muriated tincture of iron and corrosive sublimate in glycerin. A glycerin solution is used in order that it may stick to the pharynx, as it passes over it, and the patient is not allowed to take any food or water for half an hour afterward, lest the antiseptic substance be removed from the throat.

The solution of menthol and boracic acid not only cleanses the fauces and pharynx, but the menthol lessens the sensibility so that the burning effect of the iron and bichloride solution is, in great measure, prevented.

Cocaine would, of course, diminish the sensibility still more, but I have always been afraid of some untoward result from its use in these cases, and the menthol answers every purpose.

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

CULLINGS FROM GERMAN EXCHANGES.

WM. KRAUSS, M.D.

Ludvig Kraft, in *Nord. Med. Arkiv.*, reports in detail ten kidney operations, of which nine were nephrectomies and one a nephrotomy, performed by Prof. Studsgaard at Copenhagen Hospital. The indications for operation were: Suppurative pyelitis in five, malignant tumors in three, contusion of the kidney in one. The latter is of special interest. A laborer, aged 25, was run over by a wagon and brought into

the hospital immediately. Patient was half comatose; pain in right lumbar and thorax; no external injuries; after two hours hemorrhage from urinary passages. Two pints of urine, deeply tinged with blood, were passed. This continued next day. Bladder not distended; right lumbar region extremely sensitive; moderate swelling of the abdomen; increasing collapse. Nephrotomy on third day. Large hematoma in fat capsule. The fibrous capsule showed numerous deep lacerations, reaching to the hilum; the whole kidney contused and converted into a bloody mass; peritoneum uninjured. Extirpation, the stump being caught by two Richelots' clamps, which were left *in situ*. Tamponade with iodoform gauze. After operation no more bloody urine was passed. Rapid recovery. Moderate suppuration from fistula.

I. Dollinger presented a patient, aged 42, at the meeting of Budapest Medical Society, in whom he had successfully wired an intracapsular fracture of the neck of the femur. The trochanter stood rather high, extension proved too painful, hence Dollinger operated, opening above the head of great trochanter, dividing the tendons and opening the capsule. Loose spiculæ of bone were found, and the trabeculæ of the neck were wanting, being replaced by a mucous œdematous connective tissue. The head and trochanter were then perforated from before backward and wired with double silver wire; soft parts sutured with catgut. Plaster bandage. Union in eight weeks under one dressing. This fracture was spontaneous. Patient had been suffering undefined pains in hip, radiating to the knee. On taking a rather high step he broke down, and was then carried to hospital.—*Centralblatt f. Chir.*

In the report of Wieder Hospital (Vienna), v. Kliegl, under the heading of cold abscesses, mentions a new procedure, the invention of Prof. v. Mosetig-Moorhof, and not yet made public. An injection is made into the abscess, which is followed by local and general reaction, such as chill, rise of temperature, as high as 104° F., thirst, intense local pain and swelling. In from one to two days the dressing, consisting of adhesive strips over puncture and bandage of moderate

pressure, is removed, and the abscess, which is then very tense, is opened, emptied of a rather brown-colored, inodorous pus. Dressing with iodoform gauze. All reaction ceases on following day. Several cases required only one injection for complete cure; others left but a small fistula. In cases of fungous masses and bone sequestra several injections were needed. v. Mosetig explains the action by fact of cold, chronic abscess being converted into a hot, acute one.—*Centralb. f. Chir.*

At the meeting of Berlin Surgical Society, Karewski read a paper on radical operations for large scrotal herniæ in young children. If too old or too young the radical operation is contraindicated. If a truss retains the hernia properly, no operation should be done. Among 287 herniæ in children up to 5 years of age, 115 were inguinal, 25 scrotal; 6 were up to 5 years, 19 under 1 year; 14 were incarcerated. Usually reduction can be done by taxis, but herniotomy is often necessary. Operation was performed on 9, ranging in age from 7 months to 2½ years. The technique is given in full. If congenital hernia a portion of peritoneum must be left for testis. External wound is treated open, packed with gauze.

In the discussion Wolfler explains his technique. He destroys inner surface of sac by thermo-cautery, then sutures the sac, brings rectus and external oblique to Poupart's ligament, to which they are attached separately. Each layer of coverings is brought together separately. Had two suppurations; balance healed per primam.

v. Bergmann speaks of difficulty of closing the opening permanently. A lumen is necessarily left for the cord, thus furnishing a potential canal.—*Therap. Monatsch.*

Bruno Joseph reports in *Therap. Monatshefte* a case of perityphlitic abscess, operated in country practice, with recovery. The history in brief is as follows: Suddenly at 6 p.m. a violent chill and vomiting, followed by high fever, loss of appetite, intense thirst, pain over the whole abdomen, more especially in right iliac fossa, increasing on second day, and followed by diarrhea. No previous history of diarrheas alternating with

constipation, but remembers having at times had vague pains in iliac fossa. Saw patient, a strong, well-built woman, on third day after attack. Pains intermittent, general prostration, anorexia, fever, thirst, abdomen little distended. Saw patient again on fifth and eighth day, fluctuation being now made out. Putrid pus was aspirated. Abdomen more reduced, and a circumscribed fluctuating extraperitoneal sac could now be made out. Incision was made (muscular coats discolored), one and a half pints pus emptied, containing necrotic fragments. Examination for vermiform appendix or enterolith failed to reveal either. Washed out with permanganate solution, and loosely filled with iodoform gauze. Two days later an enterolith, size of a cherry-stone, passed per rectum.

A statistical review of the frequency of enteroliths, as cause of perityphlitic abscess. Matterstock and Krafft have observed 301 cases, in 126 of which enteroliths were found. He explains the passage of the enteroliths per vias naturales, by the probability of a second opening being present in either cœcum or rectum, since Gerlach's valve would have prevented its return through the lumen of the appendix. The paper closes with remarks on the attitude of the country practitioner in such cases, and the author is of the opinion that he is only justified in operating when fluctuation can be made out.

Editor Department General Surgery :

My object in writing this article is to revive a subject that is as old as the lapse of time—since the days when the dogs licked the sores on the body of the poor man, Lazarus, at the gate of the rich man, Dives. Although I have no recollection of having seen the subject mentioned in any of my medical and surgical readings, still, I have not made sufficient research into the literature of the subject to lay any claims to priority in the matter; but the idea is an original one so far as I am concerned. Almost all surgeons have had annoying and troublesome experience with chronic ulcers of the shin, often to such an extent that after taxing their ingenuity and patience to the utmost, they resort to amputation as the only means of getting rid of the sores and the patient. Such

has been my experience, and I report the following case to illustrate my idea :

Mr. D., aged 35, strong, healthy man, with syphilitic history, came to me with a chronic ulcer of right leg of two or three years duration ; had consulted a number of physicians without much benefit. I put the case on an antisyphilitic treatment, and made local application of various remedies to heal the sores with but slight benefit to patient, discontinuation of treatment being invariably followed by recurrence of trouble. Finally, the idea occurred to me that for the sake of cleanliness and stimulation of ulcers, it would be a capital plan to have a stout, healthy dog lick the sores two or three times daily, and, afterward, to make application of medicaments to the cleansed surface. I put the suggestion into immediate execution, with perfect relief and satisfaction to my patient. Whether permanent or not, I cannot say. The beneficial results obtained I base upon the fact of perfect cleanliness being insured by the process of licking, besides stimulation of the sores incident to a grateful titillation of the tender granulations by the passage of the dog's tongue over the healing surface. This method, I am sure, will prove satisfactory in most cases where there is freedom from disease of bone and periosteum, and specific constitutional taints.

A. R. HAYWOOD, M.D.

Results of Treatment of Simple Fracture of the Shaft of the Femur.

At the meeting of the American Surgical Association, held May 15, 1890, the following preamble and resolution was adopted :

WHEREAS, in the treatment of fractures of the shaft of the femur, the question often arises as to what is a satisfactory result in a given case ; therefore,

Resolved, That a committee be appointed by the President, to report at the next meeting of the Association, what, in their judgment, under the methods of treatment, should be considered as satisfactory results.

The following committee was appointed : Dr. Steph. Smith, New York ; Dr. D. Hayes Agnew, Philadelphia ; Dr. David W. Cheever, Boston ; Dr. D. W. Yandell, Louisville ; Dr. Chas. T. Parkes, Chicago ; Dr. P. S. Conner, Cincinnati ; Dr.

Charles B. Nancrede, of Ann Arbor, and Dr. Hunter McGuire, Richmond, Va.

The question referred to your committee has an important bearing upon the jurisprudence of surgical practice. One of the most frequent causes of prosecution of surgeons is the alleged mal-treatment of fractures of the femur.

The following circular was sent by the committee to the members:

“What should be considered as a satisfactory result (other than perfect union) in the treatment of a simple fracture of the shaft of the femur?”

The committee has reviewed the several questions raised and endeavored to secure a common ground on which the Association can take its position, and on which members can individually stand before the courts.

1. Bony union: The necessity of firm bony union does not admit of discussion. The amount of callus should not be taken as a criterion of the success of treatment.

2. Relation of long axis of the fragments: While it is the aim of the surgeon to restore the normal relation of the long axis of the fragments, yet it is generally impossible to secure exact apposition of the fractured surfaces, nor can the normal long axial line be restored with mathematical precision.

3. Correspondence of the anterior surfaces of the fragments: On this depends the position of the foot. The result of treatment, to be satisfactory, requires that the anterior surface be in the same planes.

4. Length of limb: This was formerly regarded as the test of success of treatment. The records of the past show that shortening was the universal rule. The discovery of the natural discrepancy in the length of the lower limbs has considerably modified our estimate of this test. Ninety per cent. of healthy, uninjured persons have lower limbs of unequal lengths. In thirty-five and eight-tenths per cent. the right limb is the longer; in fifty-four and three-tenths per cent. the left is the longer. If the amount of shortening does not exceed the average natural difference in the length of the limbs—viz., about one-half an inch—the result will be in accordance with the laws of nature in the conformation of

the lower extremities. If the shortening does not exceed the extreme limit of difference in the lengths of the natural limbs—viz., about one inch—the result should be considered satisfactory. An unsatisfactory result as regards shortening exists only when the amount of shortening exceeds one inch.

5. Lameness: This is a symptom of variable importance. Some will have a limp with one-fourth inch shortening, while others will not limp with one-half or one inch shortening. In many cases the limp disappears with time, or if it continues it is the result of careless habits of the patient.

6. Restoration of function: Essential to the function of the femur is strength of the femur at the seat of fracture, free and unimpeded action of the muscles, and proper motion of the knee joint. The determination of the degree of restoration of function cannot be made for at least one year after the cessation of treatment.

7. Conditional results: There is a class of cases in which our estimate of results must be based upon a careful study of the special circumstances connected with the treatment of each case. Results widely different from those already given must be regarded as satisfactory, when we consider the circumstances under which the treatment is necessarily pursued. The treatment may have been conducted under circumstances in which it was impossible to secure proper apparatus, or the injury may have involved other parts, so as to prevent the patient from taking the necessary position, or the patient may have suffered from delirium or other malady.

The following conclusions were presented:

A satisfactory result has been obtained in the treatment of fracture of the shaft of the femur when—

1. Firm bony union exists.
2. The long axis of the lower fragment is either directly continuous with that of the upper fragment, or the axes are on nearly parallel lines, thus preventing angular deformity.
3. The anterior surface of the lower fragment maintains nearly its normal relation to the plane of the upper fragment, thus preventing undue deviation of the foot from its normal position.

4. The length of the limb is either exactly equal to that of its fellow, or the degree of shortening falls within the limits found to exist in ninety per cent. of healthy limbs, viz., from one-eighth of an inch to one inch.

5. Lameness, if present, is not due to more than one inch of shortening.

6. The conditions attending the treatment prevent other results than those obtained. Adjourned.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

RARE CASE OF PELVIC DROPSY—OPERATION—CURE.

A Paper Read Before the Ohio State Medical Society, June, 1891,

BY J. F. BALDWIN, M.D., COLUMBUS, OHIO.

Mrs. Callie Mc., of Bremen, Ohio, aged 22 years, was seen by me, with her physician, Dr. D. P. Adams, of this city, December 9th, 1890. I found that she had been married at seventeen, and had one child, aged three years; no miscarriages. She was well nourished, and had excellent health except in one particular; a tumor as large as a cocoanut projected from the vulva, and by contact with her clothing had become ulcerated and painful.

This tumor had been in existence for about two years. On examination we found that this tumor had for its base the posterior vaginal wall, projecting forward like an immense rectocele, for which, indeed, it had been mistaken. The tumor was further found to contain fluid, which on pressure passed up into the abdominal cavity, returning again as soon as the pressure was removed. Bimanual examination revealed the presence of two tumors within the pelvis, one on each side.

Owing to the thickness of the abdominal walls the exact character of these growths could not be determined.

The next day an anesthetic was given, and the contents of the vaginal cyst drawn off by the aspirator. The contents consisted of simple serum, a little more than a pint in quantity.

Under the anesthetic a more thorough examination was possible than on the day before, but not much more could be learned. A week later the cyst contents had reaccumulated, and the tumor projected as before. The cyst was formed by a prolongation of Douglas's cul-de-sac, and our theory was that the fluid was the result of the pelvic tumors pressing on the veins of the broad ligaments.

Our patient was in splendid health, except for this ulcerated cyst, which, while not endangering life, rendered life very uncomfortable. She was very loth to have the pelvic tumors removed, as they were small and gave her no trouble, and she did not feel like taking the risk of an operation. We therefore decided to make a more thorough examination.

Accordingly, December 29, she was again anesthetized, and under strict aseptic precaution the cyst was incised, its contents evacuated, and the finger passed into the sac and thence on into the pelvic cavity. The cyst was then found to communicate with the abdominal cavity by an opening through which I was just able to pass my finger, situated just back of the womb. On one side was an ovarian cyst, the size of a large orange, and on the other side was a cyst of the broad ligament of about the same size.

We had now made a sure diagnosis, but what was to be done?

These cysts were adherent, though I did not think the adhesions were dense. But cysts of the broad ligament are not pleasant things to deal with even at the best. My friend, Dr. R. B. Hall, in reporting such a case a few months ago (*Lancet-Clinic*, December 20th, 1890), speaks as follows concerning these operations:

"It has been said by men of vast experience that the operation of removal of intra-ligamentous cysts is the most trying, difficult and dangerous of all abdominal operations. They are the cases which die on the table, from shock due to the prolonged operation and loss of blood; or the operator is unable to enucleate all of the cyst, and is compelled to cut away the greater part of it, stitching the base to the lower end

of the incision, and not a few thus treated die from sepsis. They are the cases that put to the test the courage and skill of the operator as no other operation with which I am acquainted is capable of doing."

I operated on such a cyst last August, assisted by Drs. McKinley, Nash, Wilson and others, and although my patient made a most excellent and prompt recovery, I fully concur with what Dr. Hall says of the difficulty of the operation.

We knew that our patient would hardly consent to so dangerous an operation as the removal of these two tumors, and yet her condition was one that demanded relief. I therefore suggested that we try to secure enough local inflammation to cause obliteration of the sac, as in a case of hydrocele of the tunica vaginalis. This course being approved of by Dr. Adams, I dipped my finger into a one to one thousand solution of bichloride of mercury, and repeatedly applied this to the inside of the sac. The incision was then closed by silk sutures, and the patient placed in bed. As much care was taken to secure quiet, etc., as after any other abdominal operation.

The walls of the cyst became thickened, as inflammatory reaction came on, just as we see after operation for the radical cure of hydrocele, but this was limited to the cyst, and the result was as we had anticipated: the cyst was obliterated, and the patient was cured; at least there has been no return of the trouble up to this time, and she reports herself as in the very best of health.

I report this case for several reasons:

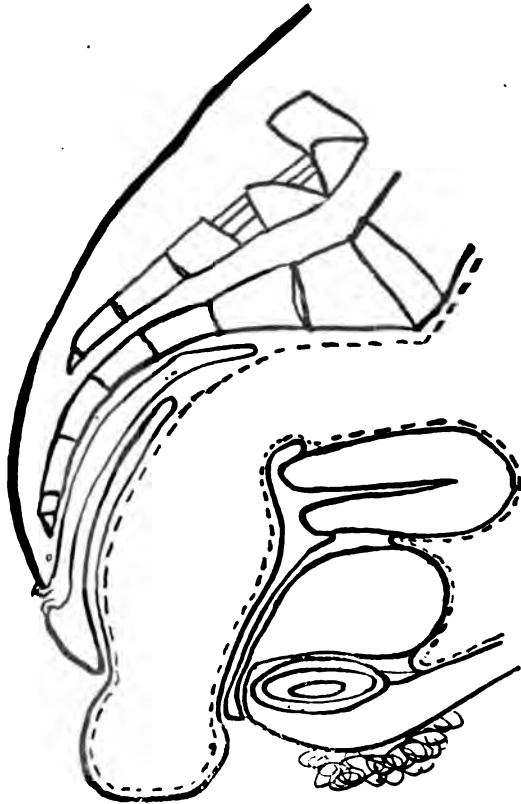
First, to ask why do we not more frequently have similar protrusion of Douglas's pouch in cases of ascites? Ascites is common enough, and this would seem to be a weak spot in the parietes, and yet I have seen but one case in which this occurred. In that case I could find no cause for this protrusion in the condition of the pelvic organs. There were no evidences of tumor or of adhesions. I have been unable to find cases among my professional friends.

Second, how common are these cases, when due to tumors? I remember reading of one case, some years ago, in which a small fibroid produced the dropsy, but in that, as I remember it, there was no such projection of the cul-de-sac. With what

limited search I have been able to make, I have not found a single other case reported.

Third, I should like to have criticisms of the treatment. The result was successful, to be sure, but this is only *prima facie* evidence of the propriety of the treatment, and I should like to hear from those of larger experience in pelvic and abdominal work, for although I have done a fair amount of such work, and with a very satisfactory degree of success, I still call myself a general practitioner, and not a specialist.

The accompanying plate illustrates the size and position of the tumor:



REPORT OF CASES.

BY E. S. M'KEE, M.D., CINCINNATI.

I made a report to the American Gynecological Society in 1887 of ten years' work—from 1876 to 1886. About 300 cases were seen by me during this period in hospital, private, and private hospital practice. I selected fifty-five of these as favorable for operation, the disease not having extended from the cervix, and in which I thought I could remove all the disease. Twenty-nine of the fifty-five cases recovered. There was recurrence in twenty-six cases. One case recurred after three years, which goes to show that the claim that they are exempt after three years is not true. Some of these cases have been under observation for fifteen years and no recurrence. Of the fifty-five cases two died, one in two and one in four days after the operation. In all of these cases the high amputation of the cervix was performed. A patient may die of uterine cancer without the disease extending beyond the cervix; the involvement of the corpus uteri is not necessary to a fatal issue. Cancer follows the squamous epithelium of the vagina before it invades the canal of the cervix. This fact should be borne in mind while operating, and as much of the cervix as can be left without danger should be spared. The internal os uteri should always be left if it is not involved in the diseased processes.

In performing an operation, the posterior parts which are the more dangerous if left, should be removed more extensively. Amputation of the cervix is to be preferred to removal of the entire uterus, in that the operation is simpler and is attended by as good if not better results in most cases. The knife and cautery are both useful, and should be employed when indicated. The important thing to be considered is the removal of the diseased tissue without encroaching unnecessarily upon healthy parts. If the body is primarily diseased, a rare occurrence, there is no operation to be thought of but total extirpation. In case the disease has extended to the internal os or near to it, would also recommend total extirpation. If the disease is constitutional and local manifestations, we should do what we can to contribute to the

comfort of the patient, but our operations would not have much to do with the cure of the disease. At what stage does the disease become constitutional no man can tell, but doubtless early. We are now back to the beginning: early diagnosis and early cure. At a certain stage there is no possible cure. Williams of London says cancer begins on the provisional mucous membrane, creeps up the external part of the cervix, and does not go so fast up the internal lining of the cervix. If the disease has gone to the vaginal junction, it turns off on the upper part of the vagina and follows up the mucous membrane. In such cases there is no possible cure of the patient from operation. The patient will die from extension of the disease. We gain nothing by removing the whole uterus and nothing by operating; the patient will do as well or better if left alone. If the cancer extends up the cervical canal, I should not object if the total extirpation is done instead of the high operation.

Statistics prove that now as of old a majority of those who die of cancer are women. Neither sex, physical strength, social position, culture nor refinement, seem to furnish immunity. Indeed it would seem probable that those in the higher walks of life are most exposed. In connection with the foregoing facts more recently emphasized, if we should be able to show that our profession has made some advances, attained better success than formerly in waging warfare against this terrible disease, the statement that the subject has at the present time unusual interest will be sustained. The popular superstition as to the heredity of cancer is greatly exaggerated. Only 8 per cent. of the recorded cases show heredity. If these facts were generally known to the public, much needless fear and anxiety would be avoided.

The early diagnosis of cancer is one of the utmost importance in the practice of our art. Its importance cannot be overestimated. If we are to do anything we can do it with so much more hope of success if done early. Many of the cases met with in hospital practice are far advanced in the disease before they seek the advice of the surgeon. He had been on duty at the Good Samaritan Hospital for eighteen years, and the number of cases which came to him there early

enough was very small indeed, and the operation is consequently more extensive and attended by more danger than if an early diagnosis had been made and surgical treatment employed early. Medical treatment amounts to nothing; surgical treatment, if employed early, may save someone. Hence, this is the only treatment worthy of consideration. This woman gives a history of prolonged menstruation. Whenever a woman comes to you between the ages of 35 and 50 and tells you that she is menstruating too freely, too long, or at intermenstrual periods, do not give way to the popular opinion that the woman is suffering from the change of life. The irregularity in menstruation which signals the approach of the menopause is that the woman will miss a period or two, and not have too frequent or excessive menstruation. This woman menstruated too freely, then had an occasional show at intermenstrual period.

Observers are generally divided into two parties: one believing that cancer is *ab initio* a local disease, the other that it is a local expression of a general disease. It is noticeable that the majority of practical writers as opposed to pathological theorists have always favored the view that cancer was primarily a local disease. The other view if followed out would lead practically to pessimism and a belief in the uselessness of operative interference. The large number of recorded cures furnish formidable evidence against the theory of carcinoma or general cancerous infection. Carcinoma is now held to be primarily a local disease with the probably solitary but conspicuous exception of Sir James Paget. The day is past for the physician to declare that a tumor was not a cancer because it did not recur after removal. This should be impressed upon the laity and the family attendant, and the sooner women learn that the disease can be cured if operated on early the better it will be for them and for our art.

Cancer is simply an epithelial growth, developing pre-existing epithelium, the cells not differing, histologically, from ordinary epithelial cells but showing a disposition to proliferate rapidly, and to invade destructively, tissues adjacent to those in which they develop.

The metastasis of cancer is still involved in uncertainty.

The infected cells are probably carried to neighboring glands by lymphatics, to distant organs by the blood-vessels. We are warranted at least in rejecting the idea that metastases are expressions of general cancerous infection.

Justamond, 1780, Quadrio, 1730, wrote that cancer was due to insects, or the germina of these taken up from the air by the lymphatic vessels. Thus we see that the bacillus theory of the etiology of cancer was foreshadowed over 100 years ago. Numerous experimenters have worked long and earnestly on the cancer bacillus, and some have thought they had found it, but Virchow's weighty opinion is opposed to the theory of the bacillar origin of cancer, though he cautiously states that we may in the future find that such a bacillus exists.

DEPARTMENT OF DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

Retinitis Albuminurica and Pregnancy.

Dr. Frank Van Vleet in an article on this subject, published in the *N. Y. Medical Journal*, of Sept. 26, 1891, says :

"In conclusion, I think I cannot do better than draw the attention of the general practitioner to the conclusions laid down by the late Dr. E. G. Loring in the *New York Medical Journal* of January 20, 1883: "A marked deterioration with or without ophthalmoscopic change, and where blindness is threatened, premature labor is not only justifiable but demanded. And where permanent loss of sight remains, premature labor is justifiable in subsequent pregnancies. And it is the duty of the physician to impress on both the woman and her husband the future possibilities."

Also those of Pooley :

"1. In all cases of pregnancy not only should examinations of the urine be made systematically, but the eye should be examined with the ophthalmoscope, since in a large proportion of cases where eye trouble exists the patient makes no complaint of disorders of vision.

"2. In uremic amaurosis, with or without change in the eye visible to the ophthalmoscope, even should the usual symptoms of kidney disease be absent, their supervention is soon to be anticipated and the immediate induction of premature labor is indicated without waiting until the life as well as the sight of the patient is in danger.

"3. In neuroretinitis the induction of premature labor is not only justifiable, but urgently demanded. In some instances it is called for even in the earlier months of pregnancy."

Our Public Institutions as Sources of Impairment of Vision.*

Dr. J. A. Lippincott concludes that—

1. Blindness in this country is increasing out of proportion to the increase in population.

2. Granular conjunctivitis is an important factor in producing impairment of vision.

3. Granular conjunctivitis is a contagious disease, and its dissemination is effected largely through the agency of orphan asylums, orphan and reform schools, and similar institutions.

4. Granular conjunctivitis can be excluded from institutions in which it has not already gained a foothold by rigid inspection (including systematic eversion of the eyelids) of all new applicants. This inspection, in the absence of the physician, might be made by a specially trained lay attendant.

5. The further spread of granular conjunctivitis in institutions where it exists can be prevented by absolute isolation of infected cases, and by the allotment to each individual of a towel for his or her exclusive use.

6. In every institution of the kind above referred to, examinations of *the eyes of all the inmates*, preferably by a specialist in eye diseases, should be made at stated periods, not less frequently than twice a year.

7. In every institution each child should have his own towel *and use it alone*, and appropriate penalties should attend infraction of this rule.

8. The efficacy of the above measures will be greatly enhanced by close attention to general sanitary requirements,

* Trans. Med. Soc. State of Pa., 1891.

including adequate ventilation, personal cleanliness, as varied diet as possible, etc.

9. The means suggested above will be found useful in the elimination of other contagious though less serious eye affections, such as follicular and catarrhal conjunctivitis.

The Memphis Journal of the Medical Sciences.

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Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this. Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting.

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

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Memphis, Tenn.

THE SNOOK-HERR POISONING CASE.—This remarkable and sad occurrence, whose history will live forever in the annals of toxicology, was a supposed wholesale poisoning at a wedding feast near Louisville, Ky. Some seventy guests partook of the repast; sixty-three of them became very sick; six died in from two to fifteen days.

The seventy cases were treated by twenty-one physicians, and some of them either made rough tests themselves or had them made by the nearest druggist. Arsenic was supposed to be found by several of them. It is difficult to arrive at a decision in summing up the evidence at a distance, but to an unbiased looker-on, Dr. Goodman, who conducted the official investigation on two of the victims, seems to have the best of the argument. His investigation was carried on in a classical and scientific manner, and bears the stamp of reliability. According to Dr. Goodman it was a septic poisoning from a toxine developed by a bacillus found in the chicken salad. The circumstances for the development of such a poison were favorable. The meat had been cooked two days and was

stored in a warm place. Cultures injected into mice proved fatal, the bacilli being found in the viscera of the dead animals.

The examination for arsenic with "drugstore chemicals and telephone copper wire" cannot be considered conclusive, nor do the clinical histories confirm it. It was further proved that one patient had taken arsenical bismuth, and the bottle containing the urine of the other "might have contained Fowler's solution."

This case clearly illustrates the laxity of our laws regarding coroner's inquests. In Europe it is criminal for anyone except those in authority to "monkey" with such examinations, and in such a perfunctory manner. The one case which promised the most definite results could not be made use of, as an autopsy was "refused." Sentimental considerations of the most ridiculous nature are permitted to outweigh those of law and justice. Until our laws *compel* necropsies in such cases, "mysteries" of this kind will continue to disgrace our forensic medical literature.

THE seventeenth annual session of the Mississippi Valley Medical Association will occur at the Pickwick Theater, Washington and Jefferson avenues, St. Louis, Oct. 14th, 15th, and 16th, 1891. The program is a valuable one containing the names of many men eminent in medicine. The number of papers will be limited, so as to admit of the fullest and freest discussion of the various topics as presented.

The medical profession of St. Louis is well able to amuse and entertain as well as instruct. The visiting doctors, their wives, daughters and friends, are promised by them a most hearty welcome. The whole day is devoted to science, and the entire night relegated to social pleasures. Time spent in St. Louis seems only too short.

Ethical questions are referred to the Judicial Council without debate, and their decision is final. Other routine business is in the hands of appropriate committees, and much valuable time is saved to the association. No threadbare subjects will be discussed.

Requirements for membership are the same as those for the American Medical Association.

Dr. C. H. Hughes, 500 N. Jefferson ave., St. Louis, is the eminent president, and Dr. I. N. Love, Lindell and Grand avenues, St. Louis, the cultured and courteous chairman of the Committee of Arrangements. E. S. McKee, M.D., Secretary, 57 W. 7th street, Cincinnati.

THE TRI-STATE MEDICAL ASSOCIATION OF TENNESSEE, ARKANSAS AND MISSISSIPPI will convene in the city of Memphis, on November 19th and 20th next. Members of the Association and all regular physicians in good standing, are cordially invited to attend. The object of the Association is to stimulate its members to a higher degree of medical attainments, and to professional *esprit de corps*, and to cultivate those social and fraternal relations which should obtain among all physicians and constitute the bonds of union in the profession. It is a duty we owe the profession to exert our best endeavors to promote its interest and maintain its dignity. In no way can we contribute more to secure these results than by meeting from time to time for the purpose of discussing questions of importance to the profession and for the free interchange of opinions. Let the members vie with each other in doing all in their power to make the meeting a success, and we will go back to our homes and to the field of our professional work imbued with new ideas and broader views, and feel that we are better prepared to discharge the important duties devolving upon us as intelligent physicians. Members who desire to contribute papers or report cases of importance occurring in their practice should notify the Secretary by October 20th, giving title of paper, in order that their names may appear on the program. A. L. ELCAN, M.D., Sec'y.

BOOK REVIEWS.

REPORT ON CHOLERA IN EUROPE AND INDIA.

The JOURNAL has received a copy of this work from the Government Printing Office. It will stand as a monument to the industry, skill and fidelity of its author, Dr. E. O. Shakespeare, and prove a storehouse of knowledge concerning cholera which will be drawn upon for many years.

Dr. E. O. Shakespeare of Philadelphia was appointed U. S.

Commissioner by the President, in 1885, to investigate the cholera epidemic, which, through its prevalence in Southern Europe at that time, threatened this country.

The various infected districts in Europe were visited, and the disease was studied from personal observation and collective investigation; and as the information thus gained was deemed insufficient, further investigation was transferred to India—the home of cholera. Altogether, one year was spent in studying the disease. There was unavoidable delay in publishing the work, for which Dr. Shakespeare has been unjustly criticised.

The book, which is of quarto size, contains about 900 pages, is fully illustrated with maps, cuts and tables, and is excellently gotten up.

A COMPEND OF HUMAN PHYSIOLOGY. By A. P. Brubaker, A.M., M.D.

This work belongs to Blakiston's Quiz-Compend series, for the use of students and physicians. It is the sixth edition, with new illustrations, and a table of physiological constants. It gives the pith of physiology in condensed form, and makes mastery of the subject easy.

STORIES OF A COUNTRY DOCTOR. By Willis P. King, M.D.

The popularity of this work is shown by the early exhaustion of the first edition, and the issuance of a second one, which has the advantage of neater arrangement and reduction in cost to \$1.00 per copy. Hummel & Parmele, publishers, Philadelphia, Pa.

THEORY, Practice and Demonstration, is the title of a 250 page pamphlet, published by the N. Y. Pharmaceutical Co., Bedford Springs, Mass. It contains a history of ether anesthesia, with a handsome engraving of Dr. M. I. G. Morton, the discoverer. A picture of Dr. N. R. Hayden and a chromolithograph of viburnum opulus in bloom, preface much valuable information on Hayden's viburnum compound. A chapter is devoted to "Our Southern Friends." Copies can be had on application to the publishers.

SAL ASEPTIC is the best, neatest and most reliable dry antiseptic on the market. Put up in eight-ounce blue bottles. One teaspoonful is enough to make a pint of solution. Useful for washing wounds, ulcers, abscesses, etc.

THE vaccine virus furnished by Dr. R. M. Higgins of Webster Groves, Mo., is uniformly reliable. No other virus has given as good satisfaction in our hands.

BLOOMSBURG, PA., Aug. 15, 1890.—Messrs. Reed & Carnrick: Following is an extract from an editorial in a recent number of the "*Times Register*." In speaking of milk the writer says it is "variable in composition; disease-transmitting; liable to adulteration; prone to decomposition; apt to absorb disease; of the utmost difficulty to preserve; a culture-ground for almost every known disease-germ; if there is a *Boa* quality which a food can have which may not be found in milk, the writer knows it not." All of which after an experience of thirty-six years I believe to be true; and I will add that if there is a better infant food (except the mother's milk) in the world than Reed & Carnrick's Soluble Food and Lacto-Preparata, I have not heard of them.

J. C. RUTTER, M.D.

* * *

CHEMICAL FOOD is a mixture of phosphoric acid and phosphates, the value of which physicians seem to have lost sight of to some extent, in the past few years. Robinson-Pettet Co., to whose advertisement we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

* * *

Dr. W. F. KIER, St. Louis, Mo., writes: I am using Renz & Henry's preparation, the "Three Chlorides," very largely in my practice, and can conscientiously recommend it in all broken down conditions. In patients of a strumous diathesis, especially those suffering from an acquired syphilis, associated with malarial poisoning, this combination recommends itself theoretically, being an excellent tonic and alterative. Practically, I have found it to be all that the manufacturers claim for it, and feel that this preparation fills a long felt want, it being palatable and within the reach, in a financial way, of a class of patients who are not able to pay exorbitant prices for necessary medicines.

* * *

ERGOTOLE, a concentrated fluid preparation of ergot, manufactured by Sharp & Dohme, is two and a half times stronger than fluid extract of ergot, and is without the objectionable odorous and nauseating constituents. We have tried it and found it retainable by the most sensitive stomach. It is absolutely non-irritating hypodermically. The reputation of this well-known house is guarantee for its quality, uniformity and reliability.

By the will of the late Dr. Fordyce Barker, all the works in his library on obstetrics, gynecology, and diseases of children, go to the N. Y. Academy of Medicine.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., NOVEMBER, 1891.

DEPARTMENT OF GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

EXTERNAL PERINEAL URETHROTOMY

For Stricture and Other Causes—With Report of Forty-One Cases.

W. B. ROGERS, M.D., MEMPHIS, TENN.,

Professor of Principles and Practice of Surgery and Clinical Surgery in the
Memphis Hospital Medical College.

The term Perineal Section has for so long a time been applied to the operation of opening the membranous urethra, by an incision through the perineum, that it will indeed be difficult to replace it entirely by the more descriptive term, External Perineal Urethrotomy. Nevertheless, the latter is by far the better term, inasmuch as it conveys unmistakably and at once, even to the student in anatomy, a correct idea of the procedure under consideration, while perineal section is liable to be confounded with the numerous operations being done even on the perineum of the female. External perineal urethrotomy is definite and descriptive, while perineal section is, to say the least, ambiguous, and future writers should avoid its use.

External perineal urethrotomy is done for various purposes, namely: To facilitate the use of instruments within the bladder in the removal of tumors, calculi and foreign bodies introduced from without; to facilitate the use of instruments in operations on the prostate gland and removal of prostatic calculi; for the removal of calculi engaged in the urethral canal; for the relief of stricture of the membranous urethra;

to insure drainage as well as free escape of urine in cases of a urethra ruptured traumatically or otherwise, as well as to divert the urine and give rest to the anterior urethra after operations thereon; to give a more direct course to the bladder for introduction of catheter in cases of retention from enlarged prostate; lastly, as a part of the operation for securing drainage and consequent rest to a chronically inflamed bladder.

External perineal urethrotomy—done for the removal of a piece of catheter from a bladder in the case of an otherwise healthy urethra and normal perineum, is a simple procedure. Scarcely more than a single stroke of the knife, no vessel of import is wounded, and the merest novice in surgery, nay, in anatomy, need not hesitate.

A broad-grooved steel staff has been passed to the bladder and is held firmly against the pubes, the scrotum has been drawn well forward, both by an assistant, the point of the left index finger in the rectum has located the staff and taken up its position just in front of the apex of the prostate gland. When a narrow-bladed bistoury in the operator's right hand is entered one to one and a half inches in front of the anus, exactly in the median line, and made to pass down to the groove on the staff just anterior to the point of the index still in the rectum; the groove in the staff having been entered, the knife glides onward to the apex of the prostate, and as it is withdrawn the urethra and perineal tissues are divided toward the rectum, making an opening sufficiently large to freely admit the index finger and forceps to be passed to the bladder. Such is external perineal urethrotomy *with a guide*. So simple, so easily done in thirty seconds, so free from danger! But look you now on this picture.

A perineum red, tense, and bulging,—a scrotum almost projecting itself forward, firm, tense, infiltrated, and here and there marked by fistulous openings, discharging foul-smelling pus—careful inspection shows but the faintest outline of a perineal raphe and that thrown to the side—palpation fails to detect scarcely more than the sides of the subpubic arch—per rectum the finger locates the prostate, and pubic rami for a short distance, but all else felt anteriorly is a hard, swollen

mass. The history of the case is one of multiple stricture of years standing—efforts at dilatation have resulted in false passages—the urethral tissues have been cicatrized to the last degree by electricity in the hands of a novice. The bladder is now filled to its capacity—the new-formed perineal abscess has produced a high temperature with occasional rigors—and an hour's careful effort aided by anesthesia has not succeeded in passing a guide beyond the bulb: here is a case for you for external perineal urethrotomy *without a guide*.

An anatomist can readily reach the healthy urethra through the normal perineum, without the aid of a staff or other urethral guide, and that too with comparatively little danger to the patient—he has his landmarks to go by; but when these are destroyed by old fistulæ, by new collections of pus distorting the median line and even the course of the urethra itself, by inflammatory processes, blending and matting together into one conglomerate mass every muscle and plane of fascia, the scene has changed, and anatomical knowledge and skill are taxed to their utmost, as line by line the tissues are cautiously divided from without inward, until finally, aided by a good light and guided by the sense of touch of his left index finger the urethra is found, opened, and he passes a probe steadily onward to the bladder. The opening of the membranous urethra by an incision through a pus-infiltrated perineum, without the aid of a urethral guide, has been rightly styled one of the most delicate and difficult operations in surgery.

It has been my privilege to do the operation of external perineal urethrotomy in forty-one instances, as presented below in a somewhat briefly detailed report of each case. A careful reading of these reports will show that it has been done for nearly every cause for which such is demanded: foreign bodies in the bladder and urethra—vesical, prostatic and urethral calculi—chronic cystitis, tortuous urethra from enlarged prostate, stricture of the membranous urethra simple and complicated, and traumatic rupture of the urethra—and while some of the cases offered a fair field for operating, the remaining ones collectively presented every difficulty and complication possibly pertaining to such cases.

Hemorrhage. In three instances (cases XI, XIII, XLI), the bleeding was arterial, and controlled by hemostatic forceps left in situ from 60 to 90 hours. I consider it far better to leave these forceps on than to attempt to tie the bleeding point deeply situated and perhaps in inflamed tissue. In several cases the bleeding, while not active arterial, was sufficiently free to be quite troublesome; this I was able to control by packing the wound with either iodoform gauze or an aseptic sponge, to be retained for 48 to 60 hours. The gauze in my experience is preferable; it remains sweet longer than does the sponge. In tamponing the wound provision must be made for the escape of urine from the bladder. For a long time I found great difficulty in retaining a catheter in the bladder, even passed the entire length of the urethra; but the following method, learned from an extract, I think, from the paper of some English surgeon, has served me admirably: A soft rubber velvet-eyed catheter, of the size of urethra in question, is selected. A needle, armed with double silk ligature, large size, is passed transversely through the wall of the catheter, encroaching as little as possible on its caliber, at say three to three and a half inches from its point. The threads are cut and the needle laid aside. The catheter is now passed the entire length of the urethra, until the velvet eye rests just within the bladder, when the ligatures will be found lying at the bottom of the wound in the perineum, to be drawn down by means of forceps. A piece of gauze, folded to a compress or tampon, of size sufficient to fill the wound closely, is packed in, and there tied to the catheter by means of the ligatures. This tampon serves to check hemorrhage, as well as to prevent the catheter escaping from the bladder and urethra. A bow knot should be used in tying the threads, because it will sometimes be found necessary to change the gauze tampon before it is deemed advisable to remove the catheter. I have ventured to give this means of retaining a catheter in the bladder, because I have seen no mention of it in any textbook. In addition to this tampon the usual compress of gauze and cotton is put on, and retained by means of the T bandage.

Of the 41 cases operated on there were but 5 to die; 2

(cases xi and xxxvi) died of sepsis, due to already existing gangrene of the parts; 3 (cases xxix, xxx and xxxix) died from exhaustion. In no instance was death attributable nearly or remotely to the operation. Five operations were done without a urethral guide. One case (xii) received no benefit whatever. In 2 cases (xv and xxiii) permanent perineal fistula was desired. In case xx the patient left prematurely with suture in the urethra. Of the remaining 33 I can learn of but 1 who has a perineal fistula; that is very small, and gives very slight inconvenience. When the operation was done for uncomplicated stricture in the membranous urethra alone, neither rigors nor reactionary fever followed, but on the contrary, in several instances where these symptoms were present, a complete calm followed immediately on the operation. In the after-treatment rigors and fever occasionally occurred at the first introduction of the sound. The chief reliance in the control of these symptoms (rigor and fever) has been morphia hypodermically.

In cases xxxi and xxxiii there was quite troublesome hemorrhage, coming on two and a half and seven days respectively after the operation. The bleeding, however, did not in either case come from the perineal structures, but from the bulbous urethra, where in each case urethrotomy had been done.

In no case did pelvic cellulitis or septic symptoms follow upon the operation, but on the contrary the operation relieved the former complication, and unquestionably prevented the latter, in several instances. Indeed, with cleanliness on the part of the surgeon and his instruments, followed by thorough irrigation of the bladder, urethra and all contiguous parts, with hot boracic acid solutions, and with proper attention paid the gauze packing in the wound, septic symptoms are not to be expected. The wound is a large one, and so dependent as to drain itself. All pockets, fistulæ, etc., connected with the perineum, should be laid open, cleansed and packed with gauze, at time of operation. The catheter is not needed in all cases, and when required can usually be removed and dispensed with after 60 hours. The patient's hips should then be brought to the edge of the bed, thighs

flexed and held by an assistant, and the wound, urethra and bladder thoroughly irrigated with hot boracic acid water twice daily, and then a dram of iodoformed glycerin thrown into the mouth of the penis and forced down to the wound in the perineum.

Apropos to this operation done for stricture of the membranous urethra. It has been argued that no urethra is ever so contracted from organic stricture that a drop of urine can not find its way through, and that if such apparently be the condition in any case, it is because of the spasmodic and inflammatory elements added to the real condition, and that opium, hot hip baths, etc., will overcome the complications and water will flow, though it be but in drops, therefore there is no such thing as impermeable stricture. But in answer, I say, what does all of that amount to in face of the practical fact that strictures are met with every day, so narrow in caliber, so tortuous in course, and so circuited by false passages and abscess cavities, that prolonged and careful efforts at the passage of instruments to the bladder, not only prove futile, but are attended with absolute danger? And the plain fact stares us in the face—impassable strictures do exist.

It is moreover true that while a given stricture is so permeable between its "bad spells" that the patient empties the bladder with comfort, yet the same urethra remains impermeable to even the smallest guide going toward the bladder. The surgeon then must judge each case on its merits, as to whether it is better to aspirate the bladder, open perineal abscesses, and adopt such like measures as may be indicated, postponing radical operative interference until the morrow, or act then and there without any guide. I do not think any urethra should be given up as impassable to instruments until at least an hour's careful effort has been made, and that, too, with the patient anesthetized; such has been my rule.

As regards Cocke's operation, a modification of the operation under consideration, I am free to confess I have not practiced it in its purity of detail. I have contented myself with finding the urethra, and opening it wherever I could between the prostate and the triangular ligament, and thankful have I been to succeed under a good light and the liberal

use of retractors. There is a certain degree of dash and boldness about it that is rather captivating, but when we come to analyze its advantages over the regulation external perineal urethrotomy without a guide, they fade to naught. To those unfamiliar with the procedure (Cocke's operation) I would venture to describe it: There is assumed always to exist a "healthy portion of urethra, often dilated and accessible to the knife, behind the stricture, that is, that portion of the urethra which emerges from the apex of the prostate, a part which is never the subject of stricture." This point, as it leaves the prostate, is sought for first carefully, with the index finger in the rectum, then boldly with a bistoury, passed from the center of the perineum directly to the desired healthy dilated urethra, as located and kept under survey of the left index; the canal opened, a catheter is passed and retained in situ until an improved condition of the perineal parts obtains, then such steps taken as are warranted under the improved condition. This, diverting the urine per catheter, relieves the parts of a great source of irritation, and they improve rapidly, as is well known. I venture the suggestion, however, that if entire membranous urethra with attendant perineal fistulæ and abscesses are laid open, cleansed, and the urethra in front, and all the parts cleansed and kept clean by repeated daily irrigations, the parts regain a healthier condition, and with far greater rapidity than if they had been left undisturbed, and only relieved of the irritating effects of the urine.

The assumption of that healthy dilated portion of the canal just at the apex of the prostate is the keystone to the operation. Such a condition doubtless frequently exists, and most often in those cases where a urethral guide is obtainable, or where the perineum yet presents a field for anatomical research; but I should enter my knife with fear and trembling of failure to find such a healthy dilated part in some instances, such as I have met with. (See cases III, XI, XIII, XV, XXIV, XXXII and XXXVII.)

Wheelhouse's operation requires an accessible $\frac{1}{2}$ inch of membranous urethra anterior to the stricture, between the bulbous urethra and the stricture, and into this he opens upon

a staff. His operation is an external perineal urethrotomy, done on a grooved steel guide, and does not merit any especial consideration. It was doubtless done by hundreds of surgeons prior to its being named, and has doubtless been done hundreds of times since by men who have never seen a Wheelhouse staff. In cases IX, XII, XXI, XXIV and XXXIV it will be seen the operation was done on a pocket probe, because a staff could not have approached to the perineal urethra.

As regards the treatment of stricture in the membranous urethra where a guide is obtainable, I would briefly say that I consider the division of the stricture, by an incision made from without through the perineum, safer than internal urethrotomy on the same stricture, and on the whole equally as satisfactory in its results, hence I advise, and practice it in all cases, coming under my care, wherein the cutting operation is indicated.

CASE I. Multiple stricture — urethro-scrotal fistula — suppurating lymphadenitis.

J. Moore (by Dr. S. J. Morris, of Texas), sent to my Infirmary, in 1889, with fever of some weeks duration, health very much impaired; strictures, three in number, two penile and third involving membrano-bulbous portion of the canal; symptoms had been urgent for three weeks, scrotal fistula was of three weeks existence. Internal urethrotomy was done on two anterior strictures and external perineal urethrotomy performed and the posterior contraction thoroughly relieved, so that No. 32 F. sound passed readily; inguinal lymphatic abscesses opened and packed with gauze; recovery was very rapid, and patient left for home at end of fourth week. This was a complicated case, and general condition of patient very discouraging, but result was correspondingly gratifying.

CASE II. Multiple stricture.—prostatic abscess.

H. G. W., 18 years, entered my Infirmary in 1887. History of gonorrhea three years before, from which bladder and urethral trouble dated. General health very poor, rigors, fever, sweats; urine contained quantity of pus with kidney and bladder elements. Two penile strictures were cut, a very contracted condition of membranous urethra was found complicated by false passage, and much enlarged left lobe of prostate. A guide was passed through a staff and external perineal urethrotomy done, and the canal thus made to accommodate a 32 F. sound. The enlarged lobe of prostate proved to be a pus collection, which was evacuated through the wound in the perineum. No foreign body was found in the bladder. Temporary improvement in the general symptoms followed, but kidney casts continued to appear in the urine. At present time, four years since operation, his general condition is very poor.

CASE III. Multiple stricture—false passage—perineal abscess, extravasation of urine.

In 1884, H. Cabit, 38 years of age, was brought a distance of thirty miles in a spring wagon, and received into my Infirmary in extremely bad condition; temperature 103, with repeated rigors and much emaciation. History of stricture of long standing; two days before reaching me retention came on, and repeated attempts at catheterization had resulted in a false passage with no relief to the bladder. Extravasation of urine, filling the perineum and scrotum and extending up in front of right pubic bone, on to the lower abdomen and right flank nearly as high as the umbilicus, occurred some 9 or 10 hours before his arrival. I found on further examination one very narrow penile stricture and another located at bulbous urethra, also a false passage beginning at deep stricture and leading into the perineum, where I, upon opening the perineum, found more than two ounces of pus. After a prolonged search I passed a filiform guide to the bladder, then followed with my urethrotome, with which I laid open all contractions and readily passed staff and did external perineal urethrotomy; the perineal and scrotal tissues were freely incised and all urine and pus drained away. An opening was next made in the right flank, in the middle axillary line, two inches above the crest. A current of hot carbolized water was passed along the route taken by the extravasated urine and every part that had been infiltrated thoroughly cleansed. No sloughing or serious inflammatory complications followed, and the patient made a most satisfactory and rapid recovery, left for his home with parts healed and passing a 32 F. sound.

CASE IV. Stricture—foreign body in urethra—vesico-abdominal urinary fistula—operation on foreign body as guide.

G. W. Holland, 31 years of age, from Mississippi, came to my Infirmary in 1884. One year previous to that time a tree fell across his hips fracturing his pelvis and rupturing the urethra, so that infiltration of urine occurred. After a long, tedious confinement he was able to be on crutches and came to me very much emaciated, with fever and rigors every evening. Examination—a fistula opening two inches below the umbilicus and two inches to right of median line, through this a probe passed to the bladder, and through this all of his urine had escaped for nearly a year. I was unable to pass any instrument via urethra to the bladder because of a stricture at anterior extreme of membranous urethra. A hard body could be felt in the track of the urethra by placing the finger firmly on the center of the perineum. An incision made upon the hard body, as a guide, opened the membranous urethra and turned out a fragment of the pubic bone triangular in shape and weighing 88 grains, incrustated with a thin layer of phosphates. The urethra leading to the bladder from the side of the piece of bone was so contracted even the full length of the prostatic portion that considerable pressure was necessary to pass a pocket probe into the bladder, over the probe a director was slipped and then a dilator, so that I was enabled soon to pass my finger into and explore the bladder. No foreign body was detected, but a deep pocket was found on the right side just within the bladder, and a probe passed per abdominal fistulous opening touched the finger in the bladder. The urethra anteriorly was then enlarged to admit a 32 F.

sound. Within three weeks the abdominal fistulous opening had healed, the perineal opening had healed, and with all ease the No. 32 passed to the bladder. He left for his home walking. This patient was in excellent "trim" six years later, "daddy" of a boy five years old.

CASE V. Multiple stricture—pyelitis—external urethrotomy with a guide.

J. W. Taylor, 47 years, from Texas, came to my Infirmary in October, 1889. Examination revealed penile stricture of large caliber on which internal urethrotomy was done, and a contraction in membranous urethra which would admit nothing larger than the filiform guide, over this a dilator was passed, and this followed by a staff, and the perineal urethra laid open from without. At time of operation his urine contained abundance of pus and tube casts with renal and bladder epithelium, and cystitis was a prominent symptom—passing water every half hour. Symptoms pointed to a pyelitis of the left side, but he declined interference there. He made a rapid recovery from the operation mentioned, went home at end of six weeks passing No. 32 F. sound, and his bladder only requiring emptying per vias naturales, six times in 24 hours. He has continued to improve in general health, and three years since he left here he has very little inconvenience with his symptoms of pyelitis.

CASE VI. Multiple stricture—vesical calculus—external perineal urethrotomy.

J. Picky, 56 years, Italian, entered my Infirmary in 1887; had suffered for 20 years with cystitis, also had stricture for about that length of time. Examination revealed two penile contractions, with exceedingly narrow and tortuous stricture in the membranous urethra, complicated by false passage, leading to between the prostate and rectum. With much care and patience I succeeded in passing a small instrument to the bladder and detected a stone. Four days later I did internal urethrotomy on anterior contractions, and then on a guide did external perineal urethrotomy. An attempt was made to crush the stone, but it proved too difficult, and I proceeded to complete a medio-lateral lithotomy and removed a large stone. He made an excellent recovery, and three years later I saw him in New York in excellent health and passing his 36 F. sound once a week.

CASE VII. Multiple stricture—false passage—septicemia—external perineal urethrotomy on a guide.

J. Frost, 29 years of age, entered my Infirmary from Texas, in April, 1891. There existed two penile strictures of small caliber, a false passage in the perineum, cystitis; general condition extremely bad, daily temperature 105°, with rigors and sweats at irregular intervals day and night; internal urethrotomy was done, a staff passed and external urethrotomy was done because of the false passage and to divert the urine from the cut urethra, catheter retained; rigors, sweats, sudden elevation of temperature to 105°, alternated throughout the day and night for ten days. Careful search was made for a collection of pus, but no evidence of its whereabouts was to be determined. The bladder and wound were irrigated thrice daily, and his urine had become clear and normal. At the end of two weeks his condition was most forlorn, when he discharged from his bowel a pint of horribly fetid pus; improvement began at once, and in four weeks he was entirely well and left for his home using a 33 F. sound.

CASE VIII. Multiple stricture—false passage—operation on a guide.

P. S. Sterling, 23 years of age, entered my Infirmary from Arkansas, 1887. General condition excellent; had stricture of several years standing; had been treated with electricity by a traveling doctor. Examination detected a penile contraction and one at bulbo-membranous junction, with a false passage complicating; much difficulty was experienced in getting a guide to the bladder; over this I passed my urethrotome and cut both strictures; hemorrhage insignificant; passed 36 F. sound to the bladder. Thorough irrigation to bladder and urethra was then done. All went well until 60 hours after operation when rigors came on with symptoms of sepsis. External perineal urethrotomy was done 70 hours after first operation for purpose of freeing any septic focus in the perineum and giving thorough drainage. The operation proved the means of saving his life. A decomposing clot of blood was found in the false passage, on the way of the knife to the urethra, which was evidently the center of poison. Symptoms of septicemia progressed until a stage of pyemia or general abscess formation was reached. More than a hundred abscesses found over his body; some subcutaneous, others deep under muscles and between planes of deep fascia. In every single instance of the appearance of an abscess on one side of his person a duplicate was found on same spot on opposite side, a thing I have seen occur in two other instances. After three months of illness he was up, but a year elapsed before he had regained anything approaching to health. Three years later his urethra had given no trouble and he passed a full stream.

CASE IX. Stricture membranous urethra—operation on a guide—so-called Wheelhouse operation.

G. V. Ramet, 52 years, patient of Dr. Hunter. General condition very bad. Stricture in membranous urethra of traumatic origin dating 20 years back, had given no real inconvenience until six weeks prior to my examination. A small hard lump size of filbert was felt to left of median line on the perineum almost in the base of the scrotum. Patient was anesthetized, and over an hour's time spent in endeavoring to pass a guide to the bladder. A false passage or pocket existed and complicated matters. A small pocket probe was, after much teasing, passed into the first portion of the stricture, and with this as a guide an incision was made through the perineum and the urethra opened. The lips in the wound in urethra were seized with forceps and held apart, and after much search a probe was passed on through a corded and irregular and tortuous channel to the bladder, the urethra was then readily made patulous to admit 30 F. sound. Progress was not marred by a bad symptom. Eight months have elapsed, and he passes a 30 sound, with no hitch anywhere, once a week—general health perfect.

CASE X. Vesical calculus—perineal litholapaxy.

H. Bone, 20 years of age, patient of Dr. T. T. Bonner, entered my Infirmary March, 1887, very much debilitated and suffering with stone in the bladder. The diagnosis of soft calculus was made. External perineal urethrotomy was done on a guide; neck of the bladder was dilated and with heavy forceps the stone was crushed to smallest fragments and washed out by means of a syringe; total weight, 400 grains. No febrile reaction; rapid recovery and healing of the wound—health regained.

CASE XI. Multiple stricture—perineal abscess—infiltration of urine—gangrene of scrotum and prepuce—operation without a guide.

J. M. L., 58 years of age, April, 1884, patient of Dr. Jordan at Milan, Tenn. Stricture of many years standing. urgent symptoms of only a few days duration. Found patient with fever and very rapid, weak pulse; entire perineum and scrotum filled with urine, scrotum inflamed and at points threatening gangrene. Penis 8 inches long, 6 inches in circumference inflamed and prepuce gangrenous—phimosis. Operation—prepuce slit up the dorsum to expose meatus, found stricture two inches behind the glans, impassable to filiform guide; external perineal urethrotomy was done without a guide, the bladder relieved and thoroughly irrigated, the scrotal tissues were freely incised and parts cleansed; no effort was made to open the stricture in the penile urethra because of patient's general bad condition. It was deemed best only to attempt to meet the then immediately urgent indications—drainage and support. Prognosis very bad; patient lived three days, with the aid of stimulants, nourishment and local poultices; cause of death, sepsis. Hemorrhage in this case was sufficient to require the application of hæmostatic forceps, which remained in situ until patient's death.

CASE XII. Multiple stricture, complicated by false passage—operation without a guide.

Jas. Greene, 31 years old, general condition good. Several strictures had been in existence over ten years. Various methods of treatment had been employed, including electricity, without benefit. Three contractions were found in the penile urethra, and divided from within so that 36 F. steel sound passed to the bulbo-membranous junction, where another stricture, with false passage, began and extended throughout the membranous portion of the canal, as far as external palpation could follow. An hour's time was fruitlessly spent in search of the passage to the bladder with filiform guides. A small probe was then passed into the false passage and the perineum laid open; beyond this the corded urethra was felt and secured with a tenaculum while the channel was opened; a grooved director was passed and the stricture divided its full extent and No. 36 F. sound passed from meatus to bladder. Every effort was made to keep the channel open, but in spite of my best endeavors at the end of eight weeks a No. 10 sound could not be made to traverse the penile urethra, and the slightest instrumentation would be followed by such severe local and constitutional symptoms, that the patient declined to continue any treatment. He is today well and hearty, but the stream is very small. The tissues in this case had been so long treated that there was an exceedingly great abundance of peri-urethral inflammatory deposit which proved rebellious to every effort at dilatation.

CASE XIII. Multiple stric ure—scrotal fistula—operation without a guide.

B. White, 31 years, from Tipton Co., Tenn., presented at my clinic in 1890. History of gonorrheal stricture of two years existence; fistula two weeks old pointing at peni-scrotal angle, through which all urine escaped. Examination revealed two contractions in the pendulous urethra with a third one at bulbo-membranous junction which refused passage to even the smallest guides. The perineum was indurated and swollen and an abscess could be felt at perineo-scrotal

junction. External perineal urethrotomy was begun without a guide ; the abscess was evacuated and cavity cleansed. The light was exceedingly bad owing to state of the weather, and the cutting had to be done guided by touch of the index finger ; the parts were very much distorted, and in every way the case proved exceedingly difficult. A large vessel was tapped. I applied hemostatic forceps, leaving them on, sent the patient to bed, because of the want of light to prosecute the operation. Two days later forceps were removed, the swelling had greatly diminished, the urethra was found and opened, and then the instrument passed from behind forward, the canal enlarged to pass in 33 F. sound. Ten months later patient pronounces himself well.

CASE XIV. Bulbo-membranous stricture—operation without a guide.

Pat. Mc., 35 years, subject to retention of urine because of a tortuous impermeable stricture involving bulbar and membranous portions of the urethra. Came before the class in my College clinic in 1883. Supra-pubic aspiration had been done twice daily for four consecutive days, while purgatives, hip baths and opiates in turn were being tried. One pound of ether was administered without getting the patient beyond the stage of excitement. Chloroform was tried, but symptoms of asphyxia threatened so strongly that after repeated trials its use was abandoned. Assistants held the patient, and amid his struggles I succeeded in doing the operation without any guide. After laying open the membranous portion its entire length, by an incision through the perineum, and washing out the bladder, I passed a probe forward and succeeded in dilating, then divulsed the bulbous urethra to admit a 33 F. sound passed on to the bladder. Patient made a rapid recovery. I saw him three months after leaving the hospital, said he was having "no trouble with the waterworks whatever."

CASE XV. Stricture obliterating the penile urethra—operation without a guide.

Geo. Mack, 30 years of age, patient of Dr. Cooper. Urethra impenetrable to smallest guide. Stricture, beginning $\frac{1}{4}$ inch post to glans, seemed to involve the entire penile urethra, was of gonorrheal origin. There was an abscess occupying the perineum in toto. Patient had temperature of 103°, was suffering greatly with distended bladder, and urine escaped in very small drops, far between. The bladder was relieved by aspiration ; abscess opened ; urethra sought for, but parts were so distorted that further search was postponed till following day, when patient was feeling better, temperature 100, bladder relieved by aspiration, and after prolonged search urethra was found and opened, and the bladder thoroughly irrigated. The lips of the wound in the membranous urethra were held apart a la Wheelhouse's method, a good light shone on the parts, the urethra leading forward was found, but every effort to trace it proved futile—it felt (through the tissues) like a reed pipe stem marked by occasional joints. This patient made a rapid recovery, with, of course, a fistulous perineum. Semen and urine at proper times, both continued to be passed through the perineal opening up to six years after the operation, when he was still in good health.

CASE XVI. Urethral calculus—stone as a guide.

Willie Hartgore, 7 years of age, was brought to me from Clarksdale, Miss., in 1889, with a calculus fixed in the membranous urethra. External perineal

urethrotomy was done, using the calculus as a guide. Stone was uric acid, weighing 90 grains. Patient made rapid recovery.

CASE XVII. Vesical calculus—external perineal urethrotomy—neck of bladder dilated and stone removed.

College clinic, October, 1887. Child of H. Wade, from Arkansas, age 4 years. Calculus detected in the bladder, staff passed and perineal urethra opened from without; prostatic urethra, such as exists at so early an age, dilated, and lithic acid stone weighing 260 grains removed with forceps. Rapid healing of wound with no reaction. Patient was carried home on seventh day.

CASE XVIII. Five inches of rubber catheter in the bladder—operation on a guide.

H. Tatar, 14 years of age, March, 1891, residence Memphis. Was afflicted with some acute cerebral trouble, causing paraplegia, with retention of urine. His physician introduced a rubber catheter, which proved to be an old one and quite brittle, so that it was broken off deep in the urethra, and the distal fragment soon passed to the bladder. When called I first passed a long pair of forceps (alligator forceps for removing foreign bodies) into the bladder, but was unable to even feel the piece of catheter. A staff was then introduced and external perineal urethrotomy was done. With my finger I dilated the neck of the bladder and located the catheter lying behind the pubic bone, forming an arch with convexity upward. It was dislodged with my finger and soon seized with forceps and withdrawn; it measured quite five inches in length. The wound healed very promptly, and eventually the boy recovered from the brain pressure causing the paralysis, and was able to go about as usual.

CASE XIX. Traumatic rupture of the urethra—operation on a guide.

Ed. White, 11 years of age, fell astride the side-board of a wagon bed, October, 1890. I saw him 24 hours after the accident, found bladder distended, and patient unable to pass any urine. Slight hemorrhage from the urethra took place at time of the injury, and he also passed a little urine shortly afterward. I found the perineum and scrotum both distended with extravasated urine. He was taken at once to the College amphitheater, it being the hour for my clinic, and a staff passed down the urethra and turned so that the point escaped through the rent in the membranous urethra. An incision through the perineum was made; an anterior-posterior rent in the floor of the urethra was found, and then the entire membranous urethra was laid open. Free incisions were made liberating the extravasated urine. The bladder was slowly emptied, then irrigated with hot water and the perineal and scrotal incisions all thoroughly cleansed. Patient made excellent recovery, with no evidence of stricture.

CASE XX. Urethra ruptured traumatically—sutured—operation on a guide.

J. Williams, 36 years, fell astride a joist while at work, October, 1888, and two hours later was presented at my College clinic. He had made no effort to pass urine; some hemorrhage from the urethra, with much distension of the perineum with blood; catheter passed to the bladder drew off 8 ounces of urine. Staff was passed to the perineum but would go no further. Numerous attempts

were made with various size instruments to reach the bladder, but all, even the catheter, which at once entered smoothly, stopped in the perineum, showing a laceration. The beak of a staff, passed down to the laceration, was turned downward into the perineum filled with clotted blood, and on this as a guide, the perineum was fully laid open down to the urethra, which was found completely divided transversely and the ends were nearly a half inch apart. A large size gum catheter was introduced the entire length of the urethra, and with silk suture the divided ends were brought smoothly together; gauze was lightly packed in the perineal wound, the catheter retained to empty the bladder at proper intervals. All went well for three days, when the patient disarranged the dressings so that the catheter escaped, and some urine escaped through the perineal wound, most of it was passed through the natural channel. His condition rapidly improved, so that he left the hospital without permission, nor have I since been able to learn his whereabouts, with the silk suture still in the wound.

CASE XXI. Multiple stricture—operation with a guide a la Wheelhouse.

G. Stover, 30 years of age, sent me by Dr. Fullilove, March, 1891, presented two contractions of small caliber in the penile urethra, and one in the membranous portion of the canal. Internal urethrotomy was done on the penile strictures, while the membranous stricture was found impassable to a guide; I passed a small staff to the stricture and made the incision through the perineum to the beak of the staff, opening the urethra just in front of and quite at the stricture, the edges of the opening just made in the urethra were seized with forceps and held apart, a probe was then used and the channel followed into the bladder; a grooved director was slipped alongside of the probe and the strictured membranous urethra laid open; a No. 32 F. sound passed readily to the bladder. At end of fourth week he went home doing nicely. This was practically a Wheelhouse operation.

CASE XXII. Stricture of membranous urethra; cystitis pyelitis—operation on a guide.

J. Hoop, 23 years of age, patient of Dr. Gillespie. History of very bad case of gonorrhea followed by cystitis. Examination July, 1890, showed pyelitis, cystitis and a stricture in membranous urethra with a caliber 20 F., while the normal urethra was 32 F. General condition very bad. External perineal urethrotomy was done on a guide. This gave him some temporary relief from his bladder symptoms and he went home, general condition very bad indeed. At present writing general health good, bladder symptoms very slight.

CASE XXIII. Enlarged prostate, causing retention—stricture—operation on a guide.

D. Williams, 68 years of age, entered my Infirmary September, 1885, from Bolivar county, Miss., suffering with retention of urine. This I relieved with a silver catheter. Examination revealed stricture caliber 16 F. in the penile urethra, which measured at normal points 30 F.; there also existed marked enlargement of the prostate gland as felt per rectum, and only a catheter with a long sweeping curve could be made to reach the bladder. He was kept some weeks under observation, the bladder requiring constant attention with the

catheter. Internal urethrotomy was done, but with no benefit, bladder still beyond his control, and he could not introduce the catheter. External perineal urethrotomy was done on a guide, with the view of giving him a more direct route to the bladder in using the catheter. The operation was a success, in that he was able to pass the catheter with perfect ease, and two years later he was getting along nicely.

CASE XXIV. Multiple stricture—perineal abscess—retention—false passage—operation on a guide a la Wheelhouse.

H. Joseph, 38 years, Memphis. Symptoms of stricture for years, worse for six months past; abscess in perineum began three days before my seeing him, October, 1889, when there was complete retention of urine. Internal urethrotomy was done on two penile contractions of small caliber; a third contraction at bulbo-membranous junction complicated by false passage prevented my passing a guide. I finally succeeded in engaging a probe in the stricture for a very short distance; and on this as my guide did external perineal urethrotomy; opening the urethra, I seized its edges with forceps a la Wheelhouse, and succeeded in passing a director to the bladder, then completed the division of the strictured membranous portion of the canal; a No. 36 F. was easily passed. The case did well for two weeks, when I left the city; the patient failed to report to my colleague for treatment.

CASE XXV. Stricture of membranous urethra—pyelitis—operation on a guide.

W. Mullins, 5 years old, from Mississippi, 1889, for one year a sufferer with bladder trouble. Examination revealed stricture of membranous urethra, cystitis with pyelitis. Urine alkaline, loaded with pus, and contained kidney epithelium in abundance. Suffered great pain in lower abdomen, but I was unable to determine whether one or both kidneys were affected; face, hands and body covered with large crusts covering suppurating sores. Constant desire to empty bladder. Patient emaciated to extreme degree. External perineal urethrotomy was done on a guide; bladder thoroughly irrigated; no foreign body found; the neck of the bladder was then incised so as to produce incontinence of urine, and thus the bladder was given temporary rest. General condition improved rapidly, in three weeks skin clean and clear; digestion good with marked increase of flesh, urine greatly improved. Patient went home, continued to improve for some months; since which time I have had no word from him.

CASE XXVI. Multiple stricture—operation on a guide.

L. Lannan, 36 years, from Tate Co., Mississippi, sometime in 1887. A penile contraction of very small caliber was subjected to internal urethrotomy, when a second contraction was found in the membranous urethra, which, with difficulty, admitted a filiform guide, over this my urethrotome was passed and the stricture freely divided along the floor of the canal. External perineal urethrotomy was then done on a staff, a No. 36 F. was passed the entire length of the urethra. Patient went home in three weeks, using No. 36 F. sound, with the perineal incision nearly healed.

CASE XXVII. Multiple stricture—operation on a guide.

Mack Fields, age 40 years, patient of Dr. Byrd, was sent to my College clinic from Arkansas, in 1887, with stricture of 15 years existence and caused by gonorrhea. Urgent symptoms were of six months duration; bladder very irritable; several small calculi had passed. Examination—one penile contraction to No. 18 F., membranous stricture admitted No. 10 F. with difficulty. Internal urethrotomy was done on the anterior, and external perineal urethrotomy on the posterior contraction, and No. 36 F. passed the entire length of the canal; bladder explored but no calculus found. Patient made excellent recovery and remained in perfect health and free from bladder or urinary symptoms for two years, at end of which time cystitis came on, and I detected a calculus in the bladder. He went home promising to return for operation.

CASE XXVIII. Multiple stricture—cystitis—renal complications—a guide.

J. McP., 23 years of age, patient of Dr. Jones, entered my Infirmary, 1889, from Craighead county, Ark. General condition very bad—rigors, fever and sweats. Constant efforts to empty the bladder. Urine loaded with mucus and pus, also contained tube casts. Examination: Penile stricture; internal urethrotomy; membranous stricture, caliber 16 F. External perineal urethrotomy was done on a guide; No. 20 F. sound passed; bladder thoroughly irrigated twice daily. Symptoms improved for ten days, urine almost clear, then relapsed, showing pus and casts. Fever, with cough; pain in right lumbar region; right pyelitis suspected. Exploratory operation proposed, but patient declined; went home, hoping to build up and return for operation.

CASE XXIX. Cystitis—pyelitis—a guide.

H. Massen, aged 39 years, patient of Dr. Battle, was presented at my College clinic in 1883. Had suffered for two years with cystitis. Urine voided constantly day and night, and with great vesical tenesmus. Fever and great emaciation. Bladder explored for stone; negative. Urine contained mucus, pus, and tube casts. External perineal urethrotomy was done, followed by incising the neck of the bladder, with a view to giving that organ rest and drainage, for temporary ease to the patient; his condition precluded hope of life lasting many days. He rested well and comfortable for three days, then gradually sank from exhaustion. Post mortem: both kidneys studded with abscesses—pyelitis.

CASE XXX. Stricture—urethral calculus—guide.

H. Gates, 58 years, suffered for years with urinary troubles. Found patient with fever, having occasional rigors, much emaciated and wholly bedridden, great pain on urinating, with blood in the urine. Stricture was found at bulbo-membranous junction, just admitting long silver probe, with which a calculus could be felt in the membranous urethra. External perineal urethrotomy was done on the calculus as a guide; the calculus weighing 220 grains was removed, and the urethra made patulous. No stone in the bladder. Perfect relief was afforded from pain, but the patient gradually sank and died on 14th day. Diagnosis, pyelitis.

CASE XXXI. Bulbo-membranous stricture—abscess—guide.

T. Ecklin, 19 years, Memphis. A second attack of gonorrhea, with cystitis and suppurative cowperitis, rigors, fever, great pain and inability to void his urine. Such is a brief statement of case seen December, 1890. Urine was drawn with soft catheter, and palliative remedies used. Two days later abscess in Cowper's gland emptied per urethra, giving great relief, but the use of the catheter was still urgently demanded by the inflamed bladder at intervals of one to two hours. A stricture rapidly developed at bulbo-membranous junction, so that very small catheter passed with great difficulty and pain. Abscess now formed in prostate gland and opened both into urethra and rectum, forming a urethro-rectal fistula, through which all urine escaped. General health now much exhausted; began improving, but fistula showed no improvement. Contraction at bulb increased, and as perfect freedom from obstruction to the flow of urine through the urethra was the first prerequisite to a healing of the fistula, and as the stricture was an acute inflammatory one, I decided on external perineal urethrotomy, which was done on a guide, and then the bulbo-membranous urethra incised to pass a 34 F. sound. There was no bleeding of consequence, and the case progressed without a complicating symptom until the morning of the 8th day, when hemorrhage from the bulb came on, and only with the greatest difficulty was it controlled. A catheter passed, the wound packed, tampon on perineum, and double spica very tightly applied, was necessary, and continued for four days, before it could with safety be removed. His condition, local and general, steadily improved, and today he is in perfect health, and passes a 32 F. once a week, with no obstruction.

CASE XXXII. Multiple stricture—perineal abscess—no guide.

Frank S., 26 years. Gonorrheal stricture of three years existence; perineal abscess three days old. Urine had been voided in drops for several weeks, and bladder now fully distended; fever, quick pulse, and rigor just passing off when I saw him. A contraction two inches behind the glans, admitted No. 12 F., another at bulbo-membranous junction was impassable to a filiform guide. External perineal urethrotomy was done after opening the abscess; no guide was obtainable and the urethra was with much difficulty located and opened; a probe was then passed forward and then a grooved director and so the route made clear to the urethrotome, when both contractions were freely divided and the bladder emptied and cleansed, a No. 32 F. passed to the bladder. Recovery was rapid and satisfactory both as to general and local conditions. One year later I passed a No. 32 F. without finding the least obstruction. General health has continued excellent, with no symptoms of return of the urethral trouble. This patient declined internal urethrotomy when I proposed it two years before, preferred and tried electricity.

CASE XXXIII. Multiple stricture—a guide.

Wm. Burrel, 23 years of age, from Mississippi. Had suffered for several years with stricture, which had been treated by gradual dilatation and with electricity, all to no benefit to the patient. I examined him first in June, 1890, found his normal urethra 30 F. while a stricture in the penile portion measured 22 F., and another at bulbo-membranous junction had a caliber of 18 F. Bladder very irritable and urine passed with much pain in the penis. No renal elements

in the urine. Internal urethrotomy was done on the anterior contraction; then I did external perineal urethrotomy on a guide, found the entire membranous portion strictured, this was divided to full length and an incision carried through the stricture at bulb, so that a 30 F. passed with perfect ease. There was slight hemorrhage, to control which the wound was packed with an aseptic sponge; usual bandage applied. At end of forty-eight hours catheter and sponge were both removed; no bleeding. Twelve hours later a free hemorrhage set in from the incision made through the stricture, where it extended forward to the bulbous urethra. This bleeding required repeated packing of the wound, reapplication of bandages, etc., and was exceedingly troublesome, recurring at intervals for several days, when it was controlled and all went well. An excellent result followed in this case: He went home on 28th day, wound healed, bladder not at all irritable, and urethra readily admitting a 30 F. One year later I passed the same instrument; there was no tendency to contraction.

CASE XXXIV. Stricture of membranous urethra—guide.

P. Keller, age 50 years, from Mississippi, entered my Infirmary in 1885 with very narrow stricture of membranous urethra, complicated by false passage. I succeeded in gaining entrance to the bladder, and divulsed his stricture to 24 F. He went home, using Gouley's dilator. All went well for four years, when he neglected the use of his instrument; then his stricture began to trouble him, and soon he was unable to pass the dilator at all. December, 1890, he returned to me with urethra so contracted that I was unable to get a guide through the membranous portion. I succeeded in engaging a small silver probe in the anterior portion of the stricture, and with this for a guide I did external perineal urethrotomy. This was practically Wheelhouse's operation. I then succeeded in tracing the urethra on to the bladder, and laid the entire membranous urethra open. He left for his home on 24th day, wound healed, and passing a 28 F. sound.

CASE XXXV. Stricture membranous urethra—false passage—cystitis—a guide.

H. Reverend, age 57, sent me by Dr. S. J. Morris of Texas. Examined 1890. Normal urethra measured 38 F. Stricture in membranous portion, caliber 24 F. False passage complicating. Cystitis has troubled him for several years, and was now quite bad. External perineal urethrotomy was done on a guide; No. 38 passed. Case did well. He left for home 27th day.

CASE XXXVI. Stricture—ruptured urethra, with urinary infiltration—gangrene—guide.

H. Woolsen, 26 years, from Mississippi, was brought to me in 1890. General condition very bad. Perineum and scrotum distended with urine, which had escaped through a rupture in the membranous urethra just behind a stricture, which I found would barely admit a filiform guide. The guide could not be passed to the bladder, but its point dipped into the abscess cavity which preceded the infiltration. The scrotum was highly inflamed, and commencing gangrene was seen at several points. The perineum was freely laid open along the median line, and the incision carried well through the scrotal tissues to give vent to the extravasated urine. At the bottom of the perineal incision was found

the filiform guide, and thus the urethra located and opened thoroughly so as to pass a 32 F. sound. Parts thoroughly irrigated, and antiseptic poultices applied. Stimulating and supporting treatment was pressed steadily, but he gradually grew worse, dying of sepsis on the 8th day.

CASE XXXVII. Multiple stricture.

Albert Br., 26 years of age, College clinic of 1891. Stricture of several years standing, and of gonorrheal origin. Bladder had been aspirated the previous evening. Internal urethrotomy was done on a penile contraction, caliber 14. Filiform guide was passed with difficulty through perineal stricture; over the guide the urethrotome was passed, and the floor of membranous urethra divided. A staff was then passed, and external perineal urethrotomy completed. A 36 sound then passed readily. Patient made excellent and durable recovery.

CASE XXXVIII. Multiple stricture.

Ody T., 34 years, College clinic of 1890, from Mississippi. Examined with urethrometer showed a normal caliber of 36, a penile stricture size 18 F., and a membranous stricture size 10 F. Cystitis very severe was present; no kidney complications. Boracic acid, 5 grains, had been given every four hours for two days. Internal penile urethrotomy and external perineal urethrotomy on a guide were done. Patient made rapid and satisfactory recovery.

CASE XXXIX. Calculus in prostatic.

Geo. Cowen, 73 years, 1890, for many years a sufferer with cystitis. General health very poor. No rest whatever, because of constant straining at passing water. Urine contained pus and tube casts. Prognosis very bad. Calculus detected in prostate; felt per rectum with finger and per urethra with small sound. External perineal urethrotomy, done on a guide, enabled me to extract a small flat stone, weight 260 grains. Patient did not improve in physical condition, though his vesical symptoms were relieved. He died ten days after operation from debility.

CASE XL. Membranous stricture—fistulæ.

Henry Jeks, 33 years, College clinic, 1889, presented half dozen fistulous openings for escape of urine. Stricture of some years standing in membranous urethra. Filiform guide passed, and over this a dilator, then a grooved staff, and external perineal urethrotomy was done, and a 38 F. passed to bladder. Excellent result, with rapid recovery.

CASE XLI. Multiple stricture.

Robert T., 24 years, 1891, patient of Dr. Morgan. Stricture of several years. General condition bad. Rigors and fevers. Urine contains much pus and mucus. Internal urethrotomy on penile stricture, caliber 20 F. External perineal urethrotomy because of stricture in membranous urethra, caliber 16 F. No. 32 passed to bladder. Patient did well. At six weeks wound had healed, and 32 sound passes smoothly and without hindrance.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

**LACERATION OF THE ANTERIOR VAGINAL WALL,
And Its Repair.**

T. J. WATKINS, M.D., CHICAGO.*

Laceration of the anterior vaginal wall has hitherto received little attention. Emmet† and Schatz‡ have considered this subject only in its relation to rupture of the levator ani muscle, and state that its repair is impracticable. Munde§ reports a case of median separation accompanied with hernia of the bladder.

Byford|| is, so far as I have been able to ascertain from a somewhat extensive study of the literature, the only author who has appreciated in any degree the true nature of the lesion, and the only operator who has suggested a rational method for its repair.

In the consideration of lacerations of the pelvic floor, all the authorities, so far as I have been able to determine, have considered only the rupture of its muscles. It is unphysiological to attribute continuous support to muscles, therefore the connective tissue alone remains to be considered. The connective tissue of the anterior vaginal wall forms a tense, firm band across the vagina opposite the neck of the bladder, which becomes gradually thinner as it approaches the uterus and as it extends along the urethra. It is attached to the bony pelvis on either side, and its reticular arrangement is such that it permits much more longitudinal than transverse freedom of motion—that is, it is so arranged as to give elastic support to the uterus, and to prevent prolapse of the urethra and bladder. The tension which this band gives to the vagina

* Read before the Gynecological Society of Chicago, April 17th, 1891.

† "Principles and Practice of Gynecology," page 364.

‡ Centralblatt für Gynäkologie, No. 40, 1883.

§ American Journal of Obstetrics, June, 1890, page 614.

|| "The Practice of Medicine and Surgery applied to the Diseases and Accidents Incident to Women," fourth edition, pages 173, 479, and 501.

is apparent to the touch; and on introducing a Sims' speculum, with the patient in the left lateral position, the effect upon the anterior vaginal wall can be easily seen (see Fig. 1)—

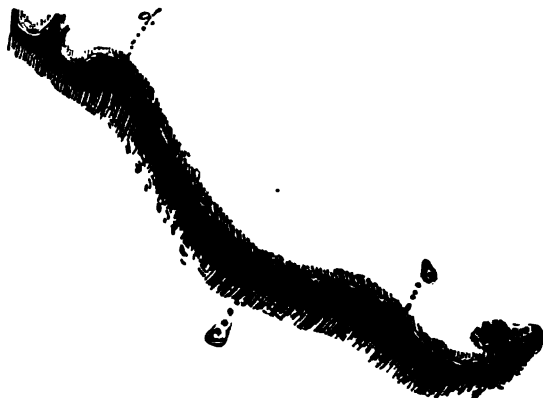


Fig. 1

that is, from the introitus vaginæ to the uterus the anterior vaginal wall presents :

1. A convexity corresponding to the urethral curve (Fig. 1, *a-b*).
2. A marked concavity opposite the trigone of the bladder (Fig. 1, *b-c*).
3. A straight line or a slight convexity from this point to the uterus (Fig. 1, *c-d*).

When this fascia is intact and involuted, urethrocele and cystocele cannot occur. The prevailing theory that urethrocele and cystocele are dependent upon and cannot occur without laceration of the posterior vaginal wall is erroneous, because—

1. Extensive laceration of the posterior vaginal wall, even through the sphincter ani, frequently occurs without urethrocele or cystocele.
2. Urethrocele and cystocele occur without laceration of the posterior vaginal wall.
3. Incision of the posterior vaginal wall—that is, artificial laceration—never produces urethrocele or cystocele.

This time-honored fallacy may be explained by the fact that both walls of the vagina are often simultaneously rup-

tured, and that the posterior rupture is much more apparent than the anterior.

Laceration of the anterior vaginal wall may be either unilateral or bilateral. I have never met with a case of median laceration, and have been able to find only one case on record.*

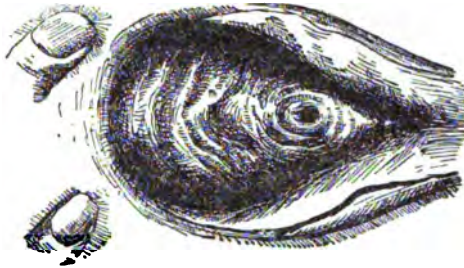


Fig. 2

The lesion is usually submucous, and occurs at or near the insertion of the fascia into the bony pelvis. It often deprives the horizontal rami of the pubes of their fascial covering for a variable distance from the urethra, and may involve the

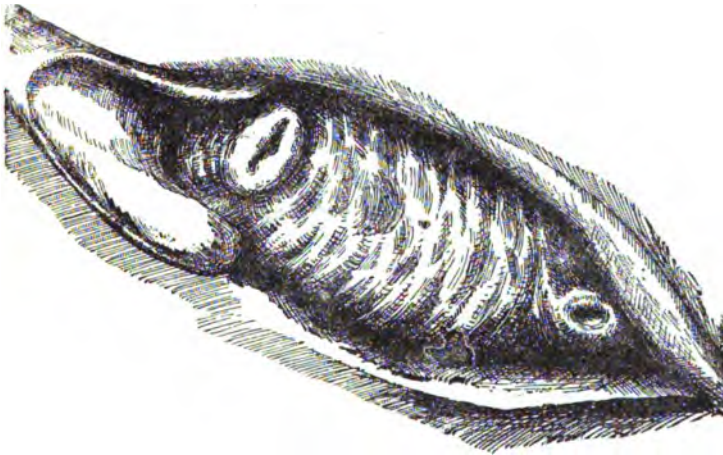


Fig. 3

levator ani muscle, as mentioned by Emmet and Schatz.† The location and extent of the laceration are easily detected by touch, and verified by inspection of the abnormal curvature of the anterior vaginal wall (see Figs. 2 and 3). The amount

* Munde, op. cit.

† Op. cit.

of the urethrocele and cystocele which result is entirely dependent upon the extent and location of the laceration, and upon the amount of involution which has taken place.

Etiology. The child's head, in its passage through the parturient canal, may produce laceration of the anterior vaginal wall—

1. By the tension and pressure incident to the engagement of the vesico-vaginal septum between it and the pubes.

2. By tearing and grinding of the connective tissue from its attachment.

Schatz* mentions anterior laceration of the levator ani muscle by instruments, and advises against oblique application of forceps.

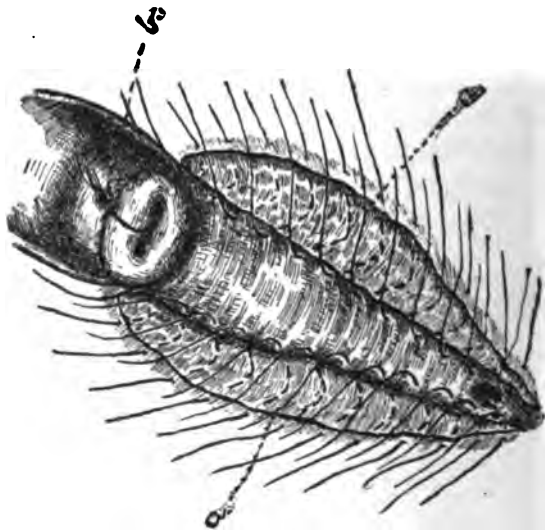


Fig. 4

Symptomatology. The objective symptoms have already been considered. The subjective symptoms, which are dependent upon the amount of urethrocele and cystocele, are—

1. Partial incontinence of urine. The urine escapes upon exertion, such as coughing, sneezing, laughing, walking, lifting, or as soon as the desire to urinate is experienced.

2. Total incontinence of urine.

The other subjective symptoms are those which are described

* Op. cit.

in the textbooks in the consideration of cystocele and prolapse of the uterus.

● *Diagnosis.* The diagnosis depends upon the recognition of the local lesion and of the resultant symptoms.

Treatment. I. Prophylaxis: The prophylactic treatment consists—

1. In the support of the vesico-vaginal septum while the fetal head is entering the true pelvis—that is, the prevention of the engagement of the vesico-vaginal septum between the head and the pubes.

2. In the prevention of excessive pressure of the head upon the pubic arch (Schatz).

3. In the employment of the usual measures for hastening involution.

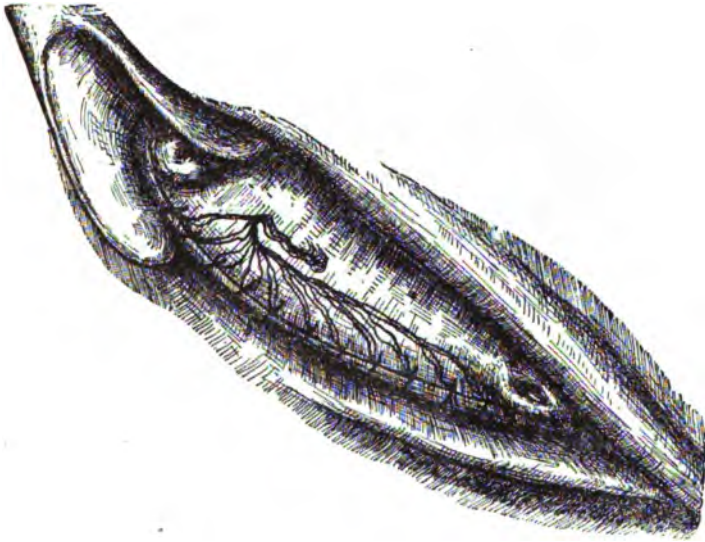


Fig. 5

II. Operation: The rational operative treatment is to restore, as far as possible, the lacerated fascia to its normal condition. The usual operations on the anterior vaginal wall have failed to accomplish this result, because—

1. They roll together tissues not involved in the laceration.
2. They include so little connective tissue that, as a rule, no permanent support is obtained.

3. Retroposition of the uterus frequently follows.

4. They produce little or no effect upon the urethrocele.

The multiplicity of median operations on the anterior vaginal wall would seem to indicate that the results of these operations have been more or less unsatisfactory.

An operation to be rational—

1. Must be upon the portion of the anterior vaginal wall which has been torn—that is, it must bring together, as far as possible, the lacerated tissues.

2. Must include much of the pelvic fascia of the anterior vaginal wall.

3. Must neither shorten the anterior vaginal wall nor bring the lateral walls of the vagina together in front of the uterus.

The unsatisfactory results of the median operations induced me to attempt a lateral operation which I have performed twenty times, and which has in every case practically fulfilled the indications.* The technique is as follows:

The patient being placed in the left lateral position, the anterior vaginal wall is exposed by Sims' speculum, and a point to the side of the urethra, near its meatus, caught by a tenaculum. The denudation is commenced at this point, and extends along the antero-lateral walls of the vagina to a point beyond the prolapse. This point may be opposite the neck of the bladder, or the denudation may extend even as far as the lateral aspect of the cervix uteri. The breadth of the denuded surface is dependent upon the extent of the urethrocele and cystocele; that is, it should be sufficiently wide to take in all the redundant tissue of the urethrocele and cystocele (see Fig. 4, *a*). The denudation may be upon one or both sides, according as the laceration is unilateral or bilateral. Should the denuded surface extend beyond the neck of the bladder, the cervix uteri should be drawn firmly upward and backward while the sutures are being inserted and tied. For this purpose I have adopted the method recommended by Dr. E. C. Dudley, in the technique of Emmet's operation for procidentia† of fastening the cervix uteri to the end of the speculum by means of a suture (see Fig. 4, *b*).

* Dr. John A. Lyons, of Chicago, has performed this operation three times with results practically identical with my own.

† Pepper's "System of Medicine," page 162.

Beginning at the uterine end of the denudation, buried silkworm-gut sutures are now passed from side to side in a curved line which has its convexity directed outward and forward. Each suture as inserted is tied, and traction is exerted toward the cervix while the next suture is being introduced and tied. The sutures should include as much connective tissue as possible, care being taken not to injure the bladder, ureters, or urethra. After passing the base of the trigone of the bladder, the sutures should be passed deeply into the lateral wall so as to include the fascia of the posterior vaginal wall near its insertion into the pubes, and as deeply into the anterior vaginal wall as the increased thickness of the vesicovaginal septum from this point outward will permit. The fixation suture should now be removed without making traction on the cervix. The ends of the sutures should be left long and should be turned into the vagina (see Figs. 5 and 6).

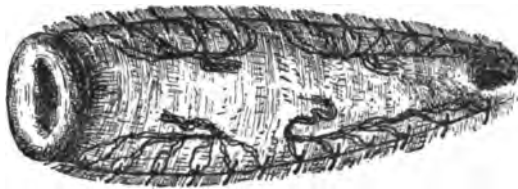


Fig. 6

The after-treatment consists in the measures usually employed in plastic operations upon the vagina. The use of the catheter should, if possible, be avoided. The stitches may be removed after a week, or may be allowed to remain for two or three weeks, according to the requirements of the individual case.

The operation has entirely fulfilled both the mechanical and symptomatic indications, except in one case, in which, on account of suppuration around some of the sutures, only partial relief was obtained. Up to this time, so far as I have been able to ascertain, the results of the operations have been permanent.

I append a tabular statement of the twenty cases in which I have performed this operation, and of the three cases operated upon by Dr. Lyons.—*Am. Jour. of Obstetrics.*

TABULAR STATEMENT.*

No.	Name	Date of Injury	Lesion	Indications	Date of Operation	Result
1	Mrs. H.	1885	Bilateral laceration.	Urethrocele. Total incontinence of urine.....	Feb., 1890.	Cure.
2	Mrs. C.	1886	Unilateral laceration.	Urethrocele. Total incontinence of urine.....	Feb., 1890.	"
3	Mrs. C.	1887	Bilateral laceration.	Urethrocele. Cystocele. Prolapse of uterus. Partial in- continence of urine.....	March, 1890.	"
4	Mrs. T.	1889	"	Urethrocele. Partial incontinence of urine.....	March, 1890.	"
5	Mrs. F.†	1882	"	Urethrocele. Cystocele. Total incontinence of urine.....	April 3, 1890.	"
6	Mrs. K.	1887	"	Urethrocele. Cystocele. Partial incontinence of urine.....	June 6, 1890.	"
7	Mr. T.	1888	"	Urethrocele. Cystocele. Partial incontinence of urine.....	June 9, 1890.	"
8	Mrs. N.	1885	"	Cystocele. Prolapse of uterus.....	June 15, 1890.	"
9	Mrs. W.	1886	"	Urethrocele. Cystocele. Partial incontinence of urine.....	July, 1890.	"
10	Mrs. D.	1886	"	Urethrocele. Partial incontinence of urine.....	July, 1890.	"
11	Mrs. Y.	1889	"	Cystocele. Prolapse of uterus.....	August, 1890.	Partial relief
12	Mrs. C.	1882	"	Urethrocele. Cystocele. Prolapse of uterus. Partial in- continence of urine.....	Sept. 22, 1890.	Cure.
13	Mrs. H.	1884	"	Urethrocele. Partial incontinence of urine.....	Sept. 27, 1890.	"
14	Mrs. E.	1888	"	Urethrocele. Cystocele. Prolapse of uterus. Almost total incontinence of urine.....	Oct. 6, 1890.	"
15	Mrs. S.	1887	Unilateral laceration.	Slight urethrocele. Partial incontinence of urine.....	Nov., 1890.	"
16	Mrs. H.	1887	Bilateral laceration.	Urethrocele. Slight cystocele. Partial incontinence of urine.....	Dec., 1890.	"
17	Mrs. McG.	1885	"	Urethrocele. Cystocele. Partial incontinence of urine.....	Dec. 10, 1890.	"
18	Mrs. M.	1884	"	Urethrocele. Cystocele. Prolapse of uterus. Partial in- continence of urine.....	March 4, 1891.	"
19	Mrs. C.	1886	"	Slight urethrocele. Partial incontinence of urine.....	March, 1891.	"
20	Mrs. A. B.	1888	Unilateral laceration.	Slight urethrocele. Partial incontinence of urine.....	March, 1891.	"
21	Mrs. F.†	1888	Bilateral laceration.	Urethrocele. Cystocele. Partial incontinence of urine.....	Sept. 3, 1890.	"
22	Mrs. H.†	"	Urethrocele. Cystocele. Partial incontinence of urine.....	Sept. 25, 1890.	"
23	Mrs. G.†	1890	"	Urethrocele. Cystocele. Partial incontinence of urine.....	Mar. 15, 1891.	"

* In the six cases in which prolapse of the uterus was one of the indications for the operation, the result, as far as this condition is concerned, must be understood to refer only to the effect produced upon the uterus by the restoration of that portion of its elastic support furnished by the anterior vaginal wall.

† This patient had already undergone two median operations without any relief. { Cases operated upon by Dr. Lyons.

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EDITORIAL CORPS.

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THOS. J. CROFFORD, M.D. JAMES L. MINOR, M.D.
SHEP. A. ROGERS, M.D.

Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this.

Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting.

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

WM. KRAUSS, M.D., Business Manager.

Memphis, Tenn.

TRI-STATE MEDICAL ASSOCIATION OF TENNESSEE, ARKANSAS AND MISSISSIPPI held its meeting in Memphis at the Gayoso Hotel, November 19, 20. The following was the program:

THURSDAY, November 19, 2 P.M.—Election of officers. Report of Committee on Surgery. Report of Committee on Malarial Hæmaturia. Appendicitis, its Surgical Treatment, by E. A. Neely, M.D., Memphis, Tenn. Report of Cases of Laparotomy and Other Surgical Operations, by G. B. Gillespie, M.D., Covington, Tenn.

THURSDAY, November 19, 7 P.M.—External Perineal Urethrotomy for Strictures and Other Causes, with Report of Cases, by W. B. Rogers, M.D., Memphis, Tenn. Quinine Idiosyncrasy, by S. W. Sanford, M.D., Union City, Tenn. Rest as a Therapeutic Agent, by J. C. Minor, M.D., Hot Springs, Ark. Hay Fever, with Report of Cases, by J. I. Taylor, M.D., Memphis, Tenn.

FRIDAY, November 20, 10 A.M.—Intestinal Obstruction, by A. B. Holder, M.D., Memphis, Tenn. Report of Case of Deafness, Aspergillus, Perforation of Drum-membrane, Artificial Drum, by J. L. Minor, M.D., Memphis, Tenn. Elimination in Treating Disease, by Sam'l Hammontree, M.D., Cuba, Tenn. Fracture of Skull and Wound of the Arm Center, by L. L. Williams, M.D., U. S. Marine Hospital.

FRIDAY, November 20, 2 P.M.—Typhoid Fever and its Differential Diagnosis from Other Continued Fevers, by H. L. Williford, M.D., Memphis, Tenn. Observations in Bone Surgery and Surgery of the Knee, by M. G. Thompson, M.D., Hot Springs, Ark. Some Common Forms of Peripheral Neuritis, by B. F. Turner, M.D., Memphis, Tenn. Hydrotherapy and its Effects in the Treatment of Chronic Diseases at Hot Springs, Ark., by H. C. Rogers, M.D., Hot Springs, Ark.

FRIDAY, November 20, 7 P.M.—A Paper, by B. G. Henning, M.D., Memphis, Tenn. Sympathetic Ophthalmia, by A. G. Sinclair, M.D., Memphis, Tenn. Deafness from Hypertrophied Tonsils, by J. F. Hill, M.D., Memphis, Tenn. Indications for Surgical Treatment by Abdominal Section in the Puerperal Fevers, by R. B. Maury, M.D., Memphis, Tenn. Asthma, by S. R. Dunn, M.D., Greenville, Miss.

FOUL WATER FOR NEW YORK CITY.—The stomach of the average New Yorker must rebel against the consumption of water, gathered at such expense, from their newly acquired

water shed, when he reads that investigations by the Board of Health show that the east branch of the Croton, which furnishes the city with 50,000,000 gallons of water a day, is absolutely foul with sewage from dwellings, barns, factories, outhouses and henhouses, flowing into it at more than one hundred specified points, and that the inhabitants in the towns and villages along the stream seemed to be absolutely without regard for the injury that they were doing the people of the city, and without respect for the laws for the protection of the public waterways.

EXCURSION TO EUROPE.—An association of medical men, with headquarters in St. Louis, and with Dr. Nicholas Senn of Chicago as President, propose to charter a vessel sailing from New York, for the purpose of conveying such physicians as may wish to attend the International Medical Congress, which meets in Rome in 1893. The itinerary has not been definitely arranged, but it will include the more interesting islands in the Mediterranean, and cities readily reached from Italy. The trip will consume about six weeks. The *Weekly Medical Review* of St. Louis solicits correspondence on the subject.

KOCH'S TREATMENT OF CONSUMPTION. — The denouncers of Koch may yet have occasion to acknowledge the value of his treatment of consumption. He possesses the confidence of the German government, which has voted a liberal allowance for the prosecution of his work, and the consensus of opinion, at the meeting of the Association of German Naturalists and Physicians, was in favor of his treatment in selected cases.

A CORRECTION.—The following letter explains a mistake, which we regret having made:

DEAR DOCTOR—I am this afternoon in receipt of your journal for October. In this issue, through some mistake, I am given credit for the opinions of another. ("Report of Cases.") I was merely the reporter not the speaker, as one would judge from the way it reads. I am sure I do not wish to appropriate any of the wisdom or operations the property of my honored teacher, Dr. T. A. Reamy of Cincinnati, whose utterances I was endeavoring to give to the public through the channel of your valuable journal. Hoping you will put me in the proper light, I remain, yours very truly, E. S. M'KEE.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION held its Seventeenth Annual Session at St. Louis, October 14, 15 and 16, 1891, President Dr. C. H. Hughes of St. Louis in the chair. The attendance was large, and papers numerous and valuable. Dr. C. A. L. Reed, of Cincinnati, was elected President; Dr. E. S. McKee, Cincinnati, re-elected Secretary; Dr. C. S. Bond, Richmond, Ind., First Vice-President; Dr. J. H. Stucky, Louisville, Second Vice-President; Dr. Joseph Ransohoff, Cincinnati, Chairman Com. Arr. Place of meeting, Cincinnati, October, 1892.

DR. WM. KRAUSS.—For the past four months the editorial department of this journal has been conducted by Dr. Wm. Krauss; and in resuming charge of this department, the editor desires to thank Dr. Krauss for his kindly assistance, and congratulate him on the spurs which he has creditably won in the journalistic arena.

BOOK REVIEWS.

MANUAL OF PHYSICAL DIAGNOSIS FOR THE USE OF STUDENTS AND PHYSICIANS. By James Tyson, M.D. Published by P. Blakiston, Son & Co., Philadelphia.

This is one of the most useful books we have seen. It is concise, complete and accurate. We commend it most highly to physicians as well as students.

HISTORY OF CIRCUMCISION from Earliest Times to the Present. By P. C. Redmondeno, M.D. Published by F. A. Davis, Philadelphia. Price, \$1.50 in cloth; 50 cents in paper.

This book, which belongs to the physician's and student's ready reference series, is very readable and instructive. The history of circumcision is given in attractive style; the physical, mental and moral benefits, conferred by removal of the prepuce, are cogently presented; the more general practice of the operation is pointed out and urged, and the best methods of performing it are described.

DR. WM. KRAUSS has removed his office to the new Randolph building, corner Main and Beale streets. The editorial and business offices of the JOURNAL are now both in this building.

INJUNCTION REFUSED IN THE CARLSBAD WATER CASE.—The opinion of the United States Circuit Court, on the application for a preliminary injunction against the defendant in the case of the city of Carlsbad et al. vs. Enno Sanders, was handed down yesterday by Judge Thayer. In substance, the injunction was to restrain the defendant from making use of the terms "Ten-fold Carlsbad Water" in the sale of an

artificial mineral water, but the judge refused to recognize the plaintiff's alleged right to the term in connection with the artificial production. Another ground upon which the court was asked to grant the injunction, was that the use of the word "Carlsbad" was calculated to deceive the public, and that the injunction should be granted on the ground of fraud, but in this the judge again disagreed with the plaintiffs, as he was of the opinion that the words used on the label of the artificial production were so large and conspicuous that no one of average intelligence could possibly be deceived into thinking that it was the natural water, hence he overruled the motion. * * *

NOTE change of adv. of Van Vleet & Co., facing first page reading matter. * * *

WRITE Caulocorea Manufacturing Co., Portland, Me., for instructive pamphlet on Therapy of Disease of Female Reproductive Organs. * * *

DR. J. S. B. HOLMES' Sanitarium, now ready for the reception of patients, is one of the most complete institutions of its kind. See adv. * * *

CACTINA PELLETS, manufactured by Mr. F. W. Sultan, PH.G., St. Louis, have been found the most satisfactory heart tonic extant. They contain the active principle of cactus grandiflora in easily assimilable form. * * *

STANLEY & HINTON, the leading funeral directors of this city, will attend to telegraphic orders promptly. * * *

THE attention of our readers is called to the advertisement of Robinson - Pettet Co., which appears in this issue. This house is one of long standing, and enjoys a reputation of the highest character. The preparations referred to, we commend specially to the notice of practitioners. * * *

REDFIELD, SOUTH DAKOTA, May 21, 1891.—Messrs. Reed & Carnrick, New York: I have had a very agreeable experience with your Soluble Food, my little boy of twelve months having consumed over 30 pounds of it since October last. I had tried nearly every form of artificial feeding and the prepared foods, none of which were assimilated. Finally he was put upon Soluble Food, and since that time he has thriven and grown hearty.

I notice that you have lately put upon the market several new specialties. If you will kindly send samples I shall be glad to make trials of them in my practice, and if I find each in its sphere as valuable as Soluble Food, you may be assured that I shall heartily commend them. E. W. MURRAY, M.D.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., DECEMBER, 1891.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY
B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

THE MICROBIC ORIGIN OF SCARLET FEVER.

JOHN FORD BARBOUR, M.A., M.D., LOUISVILLE.*

Is scarlet fever of microbic origin? While the argument from the analogy of this disease to others the microbic origin of which is well established is sufficient to convince us of this, and while there are certain clinical facts which can but be explained upon this hypothesis, yet it must be admitted that no one has ever demonstrated this bacteriologically, or isolated the specific micro-organism of scarlet fever. Various attempts in this direction have been made. Before the era of microbiology Hallier described a fungous growth—the *Tilletia scarlatina*—to which he benevolently ascribed specific properties. Coze and Feltz, in 1872, gave a description of a bacterium; but here again there was no effort at obtaining a pure culture.

In the *Medical Times and Gazette* for January, 1882, there is an account of the discovery of the supposed germ of scarlet fever by Frederic E. Klund, of Sweden. This observer states that scarlet fever is almost constantly present in the island of Skeppsholm. In the urine of scarlatinous patients he found immense numbers of disc-shaped, round or oval corpuscles, much smaller than a red blood-cell, which dis-

* N. Y. Medical Journal.

played rotary movements, multiplied by fission, and never adhered in moniliform chains. He also professes to have found them in large numbers in the soil and underground water of Skeppsholm and in barracks and other situations where scarlet fever had broken out. To this germ he gave the name *Plax scindens*.

It will readily be seen that the evidence for its specificity is simply *nil*. No other observer, I believe, has found it.

Cooke and other authors have described various bacilli and streptococci; but the proof that any of them is pathogenic of scarlet fever is lacking.

Very interesting in this connection are the investigations brought about by the Hendon epidemic, for the account of which I am indebted to a recent lecture by M. Sevestre, of Paris. (*Le Progres medical*, November 29, 1890.)

On December 14, 1885, the Local Government Board received notice of the appearance of a very severe epidemic of scarlet fever at St. Marylebone, in a region where the inhabitants obtained their supply of milk from the farm of Hendon. On the 15th of November the proprietor of this farm had purchased three cows in the county of Derby. According to custom, they were kept under observation in quarantine for fifteen days. Then, as they appeared to be sound, they were transferred to the common stable. Several days afterward scarlet fever developed in a certain number of people receiving the milk from these cows, while others of that neighborhood getting milk from another stable, remained exempt. The epidemic manifested a marked recrudescence on the 4th of December, at the same time that signs of disease appeared in four cows which had sojourned with the first three at the place of quarantine. The necessity for serious measures was then felt, and the milk from the diseased cattle was thrown away; but the inhabitants of a neighboring village—Child's Hill—succeeded in procuring it on December 16th; four days afterward the disease appeared among them.

An examination of the diseased cows showed that they had upon the dugs ulcerations which had been preceded by vesicles. A cutaneous eruption then appeared, causing a loss of hair in different parts of the body.

Power (*Report of the Medical Officer of the Local Government Board, 1885-'86, No. 8*), finding that only the consumers of milk from these cows were affected with scarlet fever, concluded that here was the origin of the disease.

Klein, to whom the bacteriological investigations were intrusted, isolated from the ulcerations a streptococcus which, inoculated in calves, produced a similar disease with presence of the microbe in the viscera. Klein discovered the same streptococcus in the blood and the viscera of scarlatinous patients, and also in the body of a monkey which, living among these patients, had drank of the suspected milk and had died after a short illness. With these data he did not hesitate to affirm that the microbe was that of scarlet fever.

To look at the matter superficially, this statement would seem to be well founded; but, closely examined, Klein had demonstrated neither the scarlatinous nature of the bovine disease nor the specificity of the microbe found in man (*Vide Proceedings of the Royal Society, London, xlii, 1887.*)

These investigations were resumed by Edington (*British Medical Journal, June 11, 1887*). He found in the blood, in the viscera, and in the skin, eight micro-organisms; among these, two of special importance—the *Bacillus scarlatinæ* and the *Diplococcus scarlatinæ sanguinis*. But, strange to say, the *Bacillus scarlatinæ* is found in the blood during the first few days only, and, on the other hand, it is present in the desquamated scales after the third week; never before. In various ways this bacillus differs from the others hitherto described, but it has never been demonstrated to be the microbe of scarlet fever. The author experimented with inoculations. These produced in the rabbit a cutaneous erythema, accompanied by fever and followed by desquamation. But is this sufficient to characterize scarlet fever? Certainly not. We know how much certain exanthems in the human being resemble scarlet fever, while they are entirely distinct from it. Such, for example, is the case of Savard, where a wounded man was affected with a lymphangitis extending over nearly the entire body, simulating exactly a scarlatinal eruption and followed by desquamation. The writer once saw a case of varicella where, after an imprudence of diet, the entire surface of the

body, from the waist up, became of the color of a boiled lobster, and this was followed by desquamation exactly like that of scarlet fever. The general nature of the eruption, then, and desquamation, are not sufficient evidence of the presence of scarlet fever.

Is it necessary, then, to inoculate a human being with these microbes in order to prove their specificity? Certainly we can not go this far, though Edington injected an adult with a dilution of a culture of his bacillus without result. In order to demonstrate the bovine origin of the disease it is necessary to find at least one case of direct transmission from the animal to man; but this has never happened, so far as we know.

However, the facts concerning the Hendon epidemic are undeniable. Numerous cases of scarlet fever developed in those persons who took the milk from a certain stable, while others who took the milk from another locality, but whose surroundings were the same, remained exempt.

Are these facts capable of any other interpretation than that given? The whole matter seems to be very satisfactorily explained by an excellent and interesting report made by Thin. (British Medical Association, Dublin, 1887.)

Thin, first of all, established a very important fact—namely, that the dealer who furnished the cows at Hendon had also sold to other proprietors. These cows, like those at Hendon, had fallen sick after a few days, and a very close inquiry established the fact that among the persons, numbering over a thousand, who drank the milk from these cows, not one had scarlet fever; as a set-off, however, among the men who attended to these cows many were affected with lymphangitis or erysipelas.

Crookshank likewise, in an epidemic of the same nature, which affected a great many cows, could not discover a single case of scarlatina among some fifteen hundred or two thousand persons who made use of the milk from these cows.

From these facts it seems legitimate to conclude, with Thin, that, if the milk from Hendon was able to propagate scarlet fever, the germ of the disease did not come from the cows.

Thin did not stop here, and a more thorough inquest revealed the following facts: In the course of his visits to Hen-

don he noticed some laundries established near there, in a district of Child's Hill, the Mead, and he learned that in this region, before the Hendon epidemic, several cases of scarlet fever had been observed (one case on September 4th and two cases on October 10th, at Child's Hill; two cases in November, at the Mead).

There is nothing remarkable about this, since the laundries received a great deal of linen from London, where scarlatina is endemic. But notice this coincidence: two men employed at Hendon as milkers lived at the Mead, and went many times a day from one to the other of these two points, separated only by a distance of half a mile. It is not established beyond doubt that they carried the scarlet fever to Hendon, but it is at least very admissible that they might have done so, and it is easy to comprehend how they might have contaminated the milk in the various manipulations to which they subjected it, especially in the process of stirring the milk with the naked hand in order to mix in with it a substance known as the color, and designed to preserve it.

To sum up, if milk can serve as a vehicle for the contagion of scarlet fever (and this fact is generally admitted in England), it is by no means established that scarlet fever may be of bovine origin.

The nature of the disease affecting the cows at Hendon is undetermined. According to Cameron, it was a new disease; Crookshank considers it an eruption of cow-pox, in which the lacerated vesicles were converted into ulcerations and served as a port of entry for a secondary infection. In any case, it seems impossible to admit that a cow may have scarlet fever, though Spinola has reported a case in a horse, and Heim one in a dog, and Letheby saw it in swine, and Keane in young cattle. Williams, a prominent veterinary surgeon in Great Britain, admits the occurrence of this disease in animals.

As to the microbes described by Klein and by Edington, that of Klein, according to Crookshank, seems to be the streptococcus of inflammation, while that of Edington, according to Smith, belongs to the same group as the *Bacillus subtilis*.

What renders this question of microbiology peculiarly difficult, is the presence in the economy of various pathogenic micro-organisms which penetrate during or after the scarlet fever, and constitute, separately or together, the phenomena of the secondary infections. A consideration of this very interesting question would unduly lengthen this paper. I will limit myself to a few remarks.

In scarlet fever, as M. Sevestre states, all the conditions for easy and prompt penetration by microbes are united: the mucous membrane has lost its epithelium, is tumid; the lymphatic spaces are distended; the crypts of the tonsils are filled with exudates; the ganglia are infiltrated from the start.

These secondary infections serve to explain certain obscure diseases which have been identified with scarlet fever; these are puerperal scarlatina and surgical scarlatina.

Finally, these investigations serve to emphasize the extreme care necessary in all bacteriological investigations. Thanks to the labors of Pasteur and Koch, these methods of study have reached a high degree of perfection, and we are just now beginning to put a sickle into this rich harvest of the near future.

FATIGUE AND DISEASE.*

The part played by fatigue in the production of disease has received much attention of late. The earlier studies of Carrieu, Peter, Fournol, Revilliod, and Rendon have been continued by other observers, notably Dr. A. B. Marfan, whose exhaustive paper upon the morbid effects of overwork appeared in the *Gazette des hopitaux* for January 17, 1891.

The amount of work or its kind has intrinsically but little to do with overwork. Some races seem to possess a special power of resistance to fatigue. The negroes in the cotton-fields are not overworked, neither are the Chinese, though it is said that they toil more steadily and terribly than the people of any other nation. Age, race, cosmic conditions, absence of proper training and force of habit, non-congenial pursuits, sudden change of vocation, and want of sleep and recreation, are all factors in overwork. All work and no play does more

* Editorial N. Y. Med. Journal, Nov. 28, '91.

than produce pure simple dullness ; it starts morbid processes induced by poisons generated within the organism itself. The deviations from health caused in this way are usually expressed by heart disturbances and typhoid conditions. Sporadic fevers, known as abortive typhoid, ephemeral, gastro-intestinal, bilious, or malarial, and so-called subacute rheumatism, are often of this nature. And various cardiac abnormalities, such as heart strain and forced or irritable heart, are often, especially among athletes, due to fatigue or strain.

The fevers of overwork are of three kinds or degrees. The first is simply a typhoid state, without rise of temperature, purely dynamic, and soon relieved by rest. The second has for its cause more prolonged fatigue without regular periods of repose. This is the acute form, a true fever with rise of temperature and alteration of the liquids of the body. The third is a typical typhoidal condition, with transient or permanent lesions. It is the result of arduous effort, such as forced marching, night watching followed by daily toil, the cramming process in superficial schools, or a sudden direction of energy into unaccustomed channels. There are changes in the solid as well as the fluid portions of the economy. The heart and blood vessels, the kidneys (as in infectious disease), and the spinal cord are the organs most likely to be affected. According to Rendon, this is the grave form of fever due to fatigue, the term subacute being reserved for cases where death from exhaustion takes place too soon for the development of the foregoing phenomena.

Of this, the soldier who fell dead after announcing the victory of Marathon to the Athenians was an example. • In Algeria, Bertherand noted two deaths occurring in native runners the instant they reached the goal. Poisoning was suspected, but the autopsy revealed nothing beyond fetid matters in the stomach and intestines, very dark blood in all the vessels, extreme softening and a dark tint of many muscles that had become infected, and extravasations of blood into the mucous membranes and the skin. Cadaveric rigidity and putrefaction set in rapidly. This sudden death from over-exhaustion is really self-intoxication by carbon dioxide, which is formed more rapidly than the lungs can exhale it. Insola-

tion and "cold strokes" are also examples of subacute disease from overwork. In other words, intense heat and severe cold are agents that quickly transform otherwise normal efforts into sources of disaster.

An explanation of the morbid effects of fatigue is not far to seek. Work produces waste. Within the organism the results of muscular activity, as Peter has pointed out in this connection, are creatine, creatinine, lactic acid, and certain nitrogenized uncrystallizable extractives. Brain at work produces leucine, cholesterin, etc. Retained products of dissimulation, prejudicial to function and to life, clog the system when the emunctories are oppressed or fatigued. The entire nutrition suffers, owing to the insufficiency of oxygen due to this accumulation of waste. Blood thus charged injected into animals has caused all the symptoms of overexertion and even death. The flesh of animals hunted or driven to death is often poisonous to those who consume it.

Overwork, then, alters normal physiological and chemical processes. It paves the way for the germs of infectious disease. It prepares the soil necessary to the formation of noxious organic compounds. Innocuous microbes may develop pathogenic properties. If the researches of Rodet and Roux, of Lyons, are confirmed, and Eberth's bacillus is proved to be but a modification of the *Bacillus coli communis*, the exclusive theory of contaminated water infection as the cause of enteric fever is shaken. The effect of poisons that it generated within the system has been slightly overlooked in the search for specific germs.

Treatment of the Cardiac Complications of Diphtheria.

In view of the gravity of the cardiac complications, prophylaxis is of the utmost importance, but, unfortunately, it is often of no avail.

Absolute quiet—confinement to bed and the avoidance of all excitement—is of the first importance even in mild cases, both as a prophylactic and remedial measure.

It is impossible to tell the effect of any other prophylactic measures which may be used, because this form of heart failure is of rare occurrence, at any rate.

The remedial treatment has been entirely unsatisfactory in those cases where the pulse becomes slow. Strychnia, atropia, brandy, ammonia, ether, and the other cardiac stimulants and tonics I have tried without the slightest benefit that I could perceive. Recovery would sometimes occur under any treatment, in the milder cases, and death invariably occurred in spite of all treatment in the severer ones.

The treatment of the disease—not the cardiac complications especially—which has seemed to me to give the best results, has been the free use of brandy, muriatic tincture of iron, and bichloride of mercury. The pharynx is thoroughly sprayed every hour or two with a solution of menthol and boracic acid in alcohol and water, and then the patient is given the muriated tincture of iron and corrosive sublimate in glycerin. A glycerin solution is used in order that it may stick to the pharynx as it passes over it, and the patient is not allowed to take any food or water for half an hour afterward, lest the antiseptic substance be removed from the throat.

The solution of menthol and boracic acid not only cleanses the fauces and pharynx, but the menthol lessens the sensibility so that the burning effect of the iron and bichloride solution is, in great measure, prevented.

Cocaine would, of course, diminish the sensibility still more, but I have always been afraid of some untoward result from its use in these cases, and the menthol answers every purpose. *William C. Dabney, M.D., in Va. Med. Monthly, Oct., 1891.*

A NEW FOOD.—Lacto-Cereal Food is a new product recently put on the market by Reed & Carnrick, of New York. It is prepared from milk, cereals and fruit, and is not only palatable, but highly nutritious and easily digested. Great progress has been made in recent years in making foods to meet various indications. The Lacto-Cereal Food is especially prepared for invalids, the aged, and for convalescents who need a palatable, digestible, perfect food for building up waste tissues at the least possible expense of digestive effort. —*Dietetic Gazette.*

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

TREATMENT OF INTERNAL HEMORRHOIDS.*

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Before entering into this subject proper, let us define an internal hemorrhoid: It is a varicosity of the middle or internal hemorrhoidal vessel; a tumor which must originate above the external sphincter muscle. Allingham classifies them into capillary, arterial, and venous tumors.

In no ailment of man is it more necessary to make a clear diagnosis of each case than in a disease of the rectum; for by far the majority of patients applying for treatment are impressed with the belief that they have piles, and no case should be prescribed for until a thorough examination, under the influence of an anesthetic if necessary, is made, and a satisfactory diagnosis obtained. The mere finding of a tumor should not end the examination, as the tumor may be symptomatic of some other disorder. The diagnosis being made we are brought to the treatment, which may be either palliative or curative. In spite of all that can be said to the patient of the safety and facility with which he may be radically cured of this most distressing malady, we will still have many more opportunities to practice the palliative than curative measures. It is therefore quite important to know what may be done to alleviate the suffering of the timid who will not submit to an operation.

The first thing to be done is to secure a daily movement of the bowels by a regulated diet if possible—if not, by the aid of a laxative. The pulv. glyc. comp., taken at bedtime, has proved most satisfactory in my hands. In many cases a full enemata in the morning serves well. Should the tumors

* Read before Tri-State Medical Society, Nov. 19, 1891.

protrude in defecation, they should be well oiled and replaced. The local treatment consists in the application of astringents, some soothing ointment, and cold or hot water.

A great variety of astringents have been recommended, but I find the subsulphate of iron as suggested by Kelsey, either in ointment \mathfrak{Zi} to \mathfrak{Zi} applied while the tumors are prolapsed, or a suppository 2 to 5 grs. inserted in the rectum at retiring, serves the best purpose. It, unlike many astringents, causes no pain and destroys no tissue. For the immediate alleviation of pain I find a 10 per cent. ointment of muriate of cocaine best. By rigid and patient observance of such measures, many cases of troublesome hemorrhoids may be greatly improved and much suffering alleviated, though they are suggested only as palliative treatment.

A most painful condition of internal hemorrhoids is strangulation. The mass of tumors protrude in defecation or under some physical effort, become swollen, congested, and livid, and an attempt to reduce them causes great pain. No better opportunity is offered to persuade the patient to be operated upon, and the condition does not contraindicate an operation. Should however an operation be decided upon, the mass must be reduced, which may prove quite troublesome.

The patient should be placed upon his abdomen, buttocks raised, so as to take the weight of the abdominal viscera off of the rectum. The tumors well oiled, gentle pressure with the bulbs of all the fingers, gradually compressing the entire mass, will effect the desired result. Should this cause too much pain an anesthetic should be administered, and the sphincter dilated, after which reduction of the whole mass may be effected, and, by a compress and tight T bandage, held in position. Ice and leeches are recommended to reduce the swelling and pain, but I have never found them necessary when an anesthetic can be given.

Curative Treatment. Before suggesting an operation, we should satisfy ourselves whether or not such a procedure is advisable; that is, whether the hemorrhoids are idiopathic or symptomatic. They may be due to some intestinal lesion, such as stricture or bladder complications, as enlarged prostate, stricture of the urethra, calculus; or, in the female, you

may find some uterine or ovarian disorder, or pregnancy, causing the hemorrhoids—all of which conditions should as far as possible be removed, and in many the hemorrhoidal tumors will disappear. If, however, the patient were suffering greatly or his life endangered by the hemorrhoids, I would not regard any of the conditions a positive barrier to the operation. Only hematuria should positively stay the hand of the surgeon.

Having decided upon some curative procedure, we find quite a number of operations suggested, all of which have their merits, while no one operative course is best suited to all cases. I have decided upon four to cover the whole field, viz.: The application of nitric or carbolic acid, the injection of carbolic acid and glycerine, the ligature, and dilatation of the sphincter ani. In cases of small capillary hemorrhoids which are found in the rectum and often bleeding, the application of nitric or carbolic acid carefully applied through a speculum to each tumor once or twice proves quite satisfactory. It causes little or no pain, unless awkwardly handled so as to touch the skin.

Case I. I have just discharged a case which terminated most favorably—a young married lady who had been treated by a homeopathic physician for three weeks for dysentery as he termed it. On examination I found two small tumors just within the internal sphincter, and an irritable ulcer or fissure. The application of nitric acid was made to the tumors, one bleeding at the time of treatment, the sphincter moderately dilated without an anesthetic, and the hemorrhage, tenesmus, and all unpleasant symptoms at once subsided.

The injection of a solution of carbolic acid and glycerine, varying in strength from 5 to 50 per cent., I believe best suited for all cases of internal hemorrhoids where the tumors are of any size. This operation originated in the hands of quacks, but deserves a place among the most valuable operative procedures. Several objections have been offered to this mode of treatment, viz.: pain, ulceration, embolus, and entrance of air. My experience is that even a 50 per cent. solution is painless injected into a pile which is strictly internal; that is,

not lying on the dividing line between the internal and external sphincter, and partaking of the nature of both an internal and external pile, being partly covered by true skin. The ulceration following a strong solution, if above the sphincter so as not to involve the integument, is of no consequence and soon heals without treatment. I have never seen it fail. Should however a solution strong enough to cause ulceration be injected into a tumor of the intermediate class, it is quite painful, and may cause an indolent ulcer in the margin of the anus. As to the fear of embolus: I use a little clamp which grasps the tumor, completely cutting off the circulation until the clot, too large and firm to leave its bed and pass through the small vessel, is formed. The danger of embolus is when the very first atom of the solution leaves the needle, forming a clot, which separates from the mass of blood and is drawn into the circulation. The clamp furnishes a positive protection against such a possibility and the entrance of air into the vein. Should you wish to avoid ulceration and confinement of your patient to bed, a weaker solution, 5 to 10 per cent., may be injected deep into the center of the tumor. It causes an irritation, a growth of connective tissue, closure of vascular loops, and consequent hardening and shrinkage in the pile; several injections, however, into each tumor at intervals of a week will be necessary to effect a cure, and not more than one tumor at a time should be treated. In my infirmity practice, where patients are away from home and business and anxious to be cured in the shortest possible time, I use the strong solution, viz., 50 per cent., being careful to exercise every precaution against any possible danger. The operation requires some skill and practice to obtain satisfactory results.

A hypodermic syringe with sharp long needle is filled with the desired solution; if the stronger, the sphincter should be dilated under an anesthetic, the tumors brought down, and the clamp placed so as to completely grasp the entire tumor near the wall of intestine; then pass the needle into the pile and inject into it about five drops of the solution, withdraw the needle and then remove the clamp. If the patient is to remain in bed, the stronger solution being used, I see no objection to treating all the tumors at once. The tumors

should be reduced immediately after injection, or they become hard and painful as a strangulated hemorrhoid.

The ligature as suggested by Allingham—that is, in partially cutting through the hemorrhoid at its base and tying the remainder is, I think, best suited to a tumor taking a portion of integument for its covering—one of the intermediate class. It leaves a smaller ulcer in the margin of anus and rectum after the sloughing of the pile. In all cases treated with the ligature, the sphincter should be dilated. It often saves much suffering.

Operation by dilation of the sphincter: Should the hemorrhoidal tumor or tumors arise from varicosity of the lower branches of the middle hemorrhoidal vein reaching below the groups of the internal sphincter, which by contraction obstructs the circulation, it is only necessary to dilate and paralyze the muscle, relieving the obstruction to the circulation. I have cured many cases by this simple procedure.

Case II. I was asked by my associate, Dr. H. L. Williford, to see a case with him—a male, age 25 years, a bookkeeper, who was suffering intensely from a fissure and a mass of hemorrhoids, which seemed to be held fast within the external sphincter. We thought the piles originated from the lower branches of the middle hemorrhoidal vessel, and was symptomatic of the irritable ulcer or fissure, and determined to dilate for the cure of the fissure and let the tumors alone. The muscle was well paralyzed, and the hemorrhoids rapidly disappeared, as did the ulcer.

The successful treatment of hemorrhoids, as of all other diseases of the rectum, depends greatly upon a thorough examination and clear diagnosis.

Laparotomy for Intestinal Perforation in Typhoid Fever.

W. Van Hook, M.D., in *Med. News*, thus concludes:

1. There is no rational treatment for perforation in the course of typhoid fever, except laparotomy.
2. The indication for laparotomy when perforation occurs in typhoid fever is imperative.
3. The only contra-indication is a moribund condition of the patient.

4. Collapse is often at least temporarily relievab^{le} by hot peritoneal flushing.

5. The stage of the fever is not to be considered as an indication or as a contra-indication for laparotomy.

6. The severity of the typhoid fever is alone not a contra-indication.

7. Early laparotomy offers the most hope.

8. The symptoms of peritonitis should not be awaited before operating.

9. In taking charge of all typhoid fever patients, it is the physician's duty to be ready, in case of perforation, to perform laparotomy.

10. The published statistics of laparotomy for this condition are strongly in favor of operation.

11. The technique, though not complicated, demands much thoughtfulness, acquired dexterity, great rapidity, and thoroughness.

Fracture in Upper Third of the Femur Exclusive of the Neck.

Oscar H. Allis, M.D., in *Med. News*, thus summarizes :

After fracture of the shaft, the fragments are bound together by a hinge.

The hinge will be short if the vulnerating force be only sufficient to break the bone.

If the hinge is short, overlapping can only occur to a very limited degree. In all such cases the "shortening" will be due to angular displacement.

If the vulnerating force is greater than necessary to merely fracture the bone, the unexpected force will tear the hinge freely.

When the hinge is loose, overlapping, with or without angular deformity, is possible.

The shorter the hinge the greater will be the control of the upper fragment, through the agency of the lower.

Traction on the lower fragment under all circumstances is incapable of restoring the long axes of the broken bone.

If the hinge is short, traction will draw down the upper fragment, but cannot efface the anterior angular tendency.

If the hinge is long traction will exert but little influence upon the upper fragment.

Traction in the oblique direction has no advantage over horizontal extension.

The so-called "weakness" after fracture of the femur is not due to deficient bone-repair.

"Weakness" is greatest when due to angular deformity with rotation of fragments.

Angular deformity, with rotation of fragments, compels both hip and knee to assume abnormal relations to the trunk.

Shortening, due to overlapping, *without* angular deformity or rotation of fragments, is no barrier to heavy manual labor.

Treatment directed to the lower fragment is the probable agency in causing rotation in the lower fragment.

No surface treatment can insure a useful limb.

Osteotomy has corrected many a faulty union after months of waste time.

The conversion of a sealed (simple) fracture into an exposed (compound) one offers the only possible means for accurate diagnosis, and the only possible method of rational treatment.

Patients and surgeons who stop short of this procedure must compromise with best results.

DEPARTMENT OF GYNECOLOGY.

CONDUCTED BY
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SOME THOUGHTS UPON EMMET'S OPERATION.*

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With Mr. Tait's announcement that nothing more useless than Emmet's operation has ever been proposed; with Dr. Price's assertion that one-half his pus cases come from uterine tinkering, much of which is bad plastic work upon the cervix; with Dr. Baldy doubting the propriety of doing trachelorrhaphy except to prevent subsequent epithelioma; with the electricians claiming that it does not make any difference if the surfaces do not unite; and with any number of enthusiasts

* Read before the Rushville Co. Med. Soc'y.

doing the operation on all sorts of cases just because it is easy, and without regard to whether or not the subjects are proper ones to be benefited by it; with all these forces opposing, there is not a little danger that a procedure of undoubted benefit to numbers of suffering women may fade into disuse.

In view of the fact that many of us have seen splendid and permanent recoveries from the worst forms of invalidism, as a result of the operation, it is with no little feeling of combativeness that we receive the objections to it. That the procedure has suffered most in the hands of its friends cannot be doubted and that this is due to the fact, that patients are operated upon who are in no way fit to undergo it, is plain.

It matters little or nothing whether, as is claimed by Mr. Tait and Dr. Massey, the symptoms are due to the chronic metritis or the subinvolution that is invariably present; the cause of the enlargement is undoubtedly the inflammatory condition at the collum.

It is absolutely irrational to suppose that an organ can be continuously, and in many cases, badly inflamed at one end, and yet this same inflammation not be an active and ruling cause for swelling, hypertrophy, and true hyperplasia at the other. It does seem to be a strange view to hold the tear to be a mere incident, when even in that capacity, it must keep the entire organ engorged with blood.

Subinvolution and chronic metritis, in cases that have followed bad labor and in which lacerations exist, are due, as all will admit, to arrested involution after the labor. Something has stopped the process of fatty degeneration and the uterus remains enlarged and heavy. This is subinvolution, so called, and between it and chronic metritis, the microscope alone can distinguish in many instances. Now, what is this something that has stopped the proper completion of involution after such a labor?

Fatty degeneration, we know, takes place only under conditions of diminished blood supply.

Nature shuts off from the uterus by closure of vessels, much of the blood that was needed during pregnancy and in consequence, we are taught, a form of fatty degeneration takes place in bundles of muscle fibers no longer nourished as

before. If now a process of inflammation attack the neck, an increased blood supply goes to the whole uterus, not to the cervix alone. It is irrational to suppose that we can have increased blood supply and inflammation at one part of the uterus, and fatty degeneration and diminished blood supply at the other. So the very effort that nature makes to close the rent in the cervix, must be cause, alone sufficient, for subinvolution and chronic metritis, which follow in such close train that absolute differentiation is impossible. This is in accordance with sense and reason, and is held by a majority of the best gynecologists of the world today, and the rent, at least in this capacity, becomes altogether something more than "a mere incident not of the slightest consequence in itself."

The long continued inflammatory condition at the cervix must be a ruling cause, not only for the subinvolution and chronic metritis, but as well for the chronic ovaritis and salpingitis that in many cases exist and imperatively contra-indicate operation.

Closure of the cervix has been blamed too much for the more serious pelvic inflammation, by gentlemen who seem blind to the fact that inflammatory products can be transferred along lymph and blood channels to the appendages from the everted, ulcerated lips, as well as from the suture tracks after operation. The presence of an inflamed ovary or tube must stand, however, as an absolute contra-indication to operation; notwithstanding one of America's well known gynecologists has recently said he would not hesitate to close a cervix in the presence of an inflamed ovary.

If it were always, or ever, possible to distinguish ovary from tube in a pelvic mass, or if we were possessed of the diagnostic acumen of some of the electricians, it might not be inconsistent to hold that the inflammation at the cervix is more dangerous than the risk of infection during the operation of closure. In the absence of the exact knowledge of the rules of differentiation the contra-indication must, in my opinion, be held to be absolute.

A patient who had been an invalid for three years with "womb disease" following a hard labor, was referred to me to be operated on for tear of the cervix. She had the lacera-

tion, the ulceration, the subinvolution, *et id genus omne*, and in addition there was retroversion, fixation and tender masses in both broad ligaments. I declined to operate on the cervix, but after faithful treatment and failure to overcome the pelvic inflammation, offered to do abdominal section. This she declined, and is gone from me now, hunting somebody to operate on her uterus.

Another woman I treated for a year, until I could overcome a tenderness and enlargement over the region of the left ovary. At the end of eight months no enlargement could be found. I insisted upon waiting yet another four months, and at the time of the operation, family and assistants were notified that the operation on the cervix would not be undertaken if there appeared, under careful examination of the etherized patient, any sign of pelvic disease. She was operated on and cured. Now, I am firmly convinced that trachelorrhaphy in this case a year before, would have been almost certain to have increased the pelvic disease. Such cases serve to illustrate the principal contra-indication, and those who are indifferent to it, or not capable of making a diagnosis of pelvic inflammation, should not attempt Emmet's operation.

Another contra-indication, I believe, exists in the cases wherein nature has, at last, healed the tear by the deposit of cicatricial tissue. I do not think there is any trouble in those cases after the cicatrix has formed, but it is the inflammatory action, necessary to produce the cicatrix, that begets all the symptoms.

So, in such cases, it certainly appears unwise to proceed to do over again, that which has already been accomplished. The cicatrix has been accused of pinching the nerves ending in it, and all sorts of morbid nervous phenomena have thus been explained away. This does not appear, for such symptoms do not arise in cases that present complete cicatrization; yet they do occur to a marked degree when the cicatrization is only partial. In other words, as long as the inflammation is going on, the ulceration, subinvolution and chronic metritis, and all the train of symptoms that depend thereon, exist and persist; and when the inflammation subsides the symptoms

disappear. This is the logic of all the different methods of cure: medical, electrical, or operative. When the electrician talks of a "powerful constringent action of a bulbous electrode overcoming the engorged muscular tissue and restoring the tonicity of the uterus," he simply uses other words to say that his treatment cures the inflammation. When the champion of the do-nothing plan treats such cases by rest in bed, ergot, salts of potash, etc., he is not trying to unite the tear, but to overcome the inflammation consequent upon it. For is not rest the primal factor in the cure of all inflammation? Does not the ergot lessen congestion and control blood supply? Do not the potassium salts hasten the elimination of inflammatory products? If this treatment has a rational basis it must be effectual in no other way. When the surgeon advises paring the surfaces and getting a primary union he knows, that by so doing, he can quickly and permanently cure the inflammation of the part.

Another contra-indication, I believe, occurs in cases that have laceration and erosion, and yet have not such ill health that operation is demanded. Everyone has seen cases of marked laceration that produced absolutely no symptoms, and in such cases I am clear that the operation is not needed. Abortion has been traced to such lacerations, and patients operated on to prevent it, and possibly with success, but it is difficult to establish the fact that abortion comes from the condition of the cervix and not from other causes.

Again, the operation has been brought into some disrepute by reason of failure to properly prepare the patient. Much can be done in the way of improving the general condition of the patient, but, if this is neglected, the result of the operation will not be so prompt or decisive. The case will be benefited, but not cured, until after a longer time than was anticipated has elapsed. On the other hand, too long continued preparatory treatment, especially local medication, is an error in the opposite direction.

One reason alone, in my opinion, is sufficient why the operation should not be abandoned, and that is that there is no way in which ulceration of the torn surfaces can be cured so readily.

No one thinks, at this day, of the old mistake of ulceration

of the cervix, which we now know does not exist except upon torn, everted surfaces. But there is no escape from the fact that laceration and ulceration do coexist, and to consume weeks, and even months, of useless treatment in curing laceration, only to find it renewed at the last indiscretion or exertion, is not only a mistake, but bad management, exceeded only by that other plan of using no topical treatment whatever, and relying upon internal drugging alone.

Cases managed in either of these ways will never recover at all, or only after months of suffering, danger and expense; and to resign Emmet's operations for these plans, or because some badly selected cases or badly treated cases have resulted unfavorably, is certainly a retrograde movement.

The fact that these ulcerations are often irritated until they take on malignant action, is accepted by all observers; and nothing could be more rational than the application of the operation to prevent epithelioma.

So long as these delicate surfaces are treated to nitrate of silver and nitric acid, to iodine and all sorts of irritating applications, and so long as these women are neglected and receive only internal medication and electricity, just so long will our cases of cancer of the cervix increase.

To resign this method of treatment because, perhaps, some surgeons have employed it in badly selected cases, or performed the operation for cosmetic effects, or without due regard for contra-indications, is certainly to give up a measure of undoubted value.

Early operation should be the rule. Idly temporizing with other plans of treatment is only to invite septic endometritis, salpingitis and other complications that, in many instances, justly or unjustly, have been traced to the operation.

There can be no doubt that many bad cases which come to the hand of the abdominal surgeon could have been cured by early resort to trachelorrhaphy, and because some of our great laparotomists have pointed out the grave consequence of disregard of contra-indications, is no reason why all lesser procedures of gynecological surgery should receive such wholesale condemnation.—*Am. Gynec. Jour.*

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.CONDUCTED BY
JAMES L. MINOR, M. D.**A CASE OF OTITIS PARASITICA—OTORRHEA—DEAFNESS.
Artificial Drum-Membrane.**

JAMES L. MINOR, M.D., MEMPHIS, TENN.

I have selected this case of multiplicity of diseases, not on account of its novelty alone, but because in relating it several important points in ear disease are emphasized; and, too, the case presents some features of special interest. A synopsis of the case is as follows: *Disease of external ear from vegetable fungus (aspergillus)—cure; chronic inflammation of middle ear, with persistent discharge (otorrhœa)—cure; deafness of eighteen years duration, relieved by artificial drum-membrane.*

Mr. ——— consulted me about his ears, January 13, 1888, and gave the following history: Aged 55 years. Never heard well. In 1849 earaches, and following these discharge from each ear, which continued until 1870, when it yielded to treatment, but left deafness so great that only loudest tones of voice could be heard, and pencil and tablet had to be resorted to. This condition continued until 1880, when the hearing became worse and the discharge reappeared, and so remained until I saw him. I found absolute deafness in the right ear, the drum being retracted, thickened and scarred. In the left ear only the loudest sounds could be heard; the auditory canal was inflamed and covered with a membranous material of a blackish color; there was a perforation about the size of a pin head near the center of the drum, from which pus, from a suppurating middle ear, escaped. My treatment was confined to this ear. The ear was cleansed by syringing with a bichloride of mercury solution (1.5000), then dried with absorbent cotton, and tamponed with boric acid powder. This procedure was repeated daily, at first, and then at longer intervals, over a period of about one month, at the end of which time all inflammatory symptoms subsided. The hole in the drum remained, however, and the hearing was as bad as ever.

hence I decided to try an artificial drum. I first used the little rubber disc, so often tried, and so rarely beneficial, and got no help from it. I then extemporized an artificial drum, by taking a bit of absorbent cotton, and molding it into a thin disc the size of the drum-membrane. This was moistened with equal parts of glycerin and water, and applied to the drum of the ear. As soon as it was properly placed, there was an instant change in the facial expression of the patient, and he joyfully exclaimed that he could hear; that the noises from the street sounded again after a silence of eighteen years, and I was asked to speak, that the human voice might be heard naturally again. I did speak, and found that he could hear and understand, when I spoke in an ordinary tone, a few feet from him, but that elevation of voice was necessary when I was further removed.

This patient has been under observation for nearly four years. He is still, to all intents and purposes, absolutely deaf, except when an artificial drum is worn, but with it in place he hears well enough for all practical needs. The drum has to be changed every month or so. Occasionally the middle ear becomes inflamed, and the drum has to be removed while treatment for that affection is practiced.

The dark membranous material which came from the ear when treatment was begun, I examined microscopically, and found that it contained a certain form of vegetable mold (*aspergillus flavescens*), which sometimes gives rise to a very obstinate form of inflammation of the external auditory canal. In this instance it yielded to the treatment first instituted, and has not returned.

The Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. See adv.

ALL AROUND THE YEAR 1892.—We have secured this really artistic calendar, with new designs in color, by Janey Pauline Sunter, on heavy card board—the prettiest we have seen.

SOCIETY MEETINGS.

TRI-STATE MEDICAL SOCIETY OF MISSISSIPPI, ARKANSAS AND TENNESSEE.

Meeting was called to order Thursday, November 19th, at 10:30 o'clock, by President H. C. Dunnivant.

Mr. M. R. Patterson, in a neat speech, addressed the meeting; wishing the visiting members a hearty welcome.

Dr. Elcan read the report of the Committee of Arrangements.

A letter from Dr. R. W. Barton expressing regret at inability to attend, was read; the letter was accompanied by blood and urine specimens from a case of malarial hematuria.

A Committee of Credentials was appointed by the President, and several members were recommended.

Dr. Elcan presented a case of stricture of esophagus of three years standing. Gastrotomy had been performed in Ft. Wayne, Ind.

Dr. Saunders moved that the discussions be limited to five minutes, and each member be permitted to speak but once.

Carried.

President Dunnivant then delivered his address, which dwelt upon the necessity of fewer colleges and higher standards. The paper was warmly applauded, and, on motion, referred to the Committee on Publication.

On motion of Dr. Powell, a committee was appointed to report on the salient points of the President's address. Drs. Powell, McNeil and Elcan were appointed.

SECOND SESSION.

Meeting was called to order by President Dunnivant at 2 o'clock P. M.

Election of officers was held and the following gentlemen were elected: President, Dr. A. Webb, Collierville; First Vice-President, Dr. M. G. Thompson, Hot Springs; Secretary, Dr. A. L. Elcan, Memphis; Assistant Secretary, Dr. Walton, Memphis; Treasurer, Dr. Wm. Krauss, Memphis.

The report of the Committee on Progress of Surgery was called for, but Chairman Wm. B. Rogers was not ready.

The next report on the program was that of the Committee on Malarial Hematuria, which was read by the Chairman, Dr. Wm. Krauss.

On motion it was referred to the Publication Committee, and the committee continued for another term.

Dr. Neely—Paper on appendicitis. Prefaced by review of the history of the operation for the disease. Urges early operation. Literature of three years is in favor of careful irrigation after operation. Appendicitis with tumor should be opened and drained early, failure is inexcusable. Salines after operation.

Dr. Saunders, in the discussion, recommended early operation, and says better results are now obtained because of early recognition.

Dr. Thompson says free purgation should have been given first; says he cured one case repeatedly.

Dr. Saunders said "You will lose your case yet."

Dr. Saunders moved to refer.

The other papers being ready the evening program was called for.

Dr. Saunders moved to proceed with consideration of constitution and by-laws.

Carried.

Dr. Williford moved the report of last year's committee be received and committee discharged.

Carried.

Dr. Duke moves volunteer papers be heard.

Dr. Williford reports case of abscess of liver.

Dr. Williams had read paper at local society, and next day Dr. Williford saw a case from Desha County, Ark.: History of malaria and dysentery. This was in the spring. Early in summer began having chills. In October, very much reduced, liver distended, bowels loose, dozen discharges of blood and mucus; abscess pointed to right of median line; aspirated by hypodermic syringe. Advised operation, and told patient the danger of delay. Drs. Henning and Turner also examined him. Patient declined operation and returned home. Only yesterday ran across him—has gained twenty pounds in weight, had had no rigors, no pus had escaped from anywhere.

Now did that abscess terminate in absorption? What has become of the pus?

Doctor Saunders: You must have hoodooed the fellow—must have been very small abscess and very large liver. We do not expect absorption in such cases—can't account for it. Abscesses are interesting to us in the Mississippi Valley; saw one case one afternoon and proposed to operate next morning. That night ruptured into bronchus. This was eleven years ago. This year he died of dropsy from cirrhosis. We have three varieties of cirrhosis: malarial, syphilitic, and alcoholic. Our abscesses are malarial cirrhosis, complicated with alcoholic, whisky being used as an antidote in the bottoms.

Dr. Weissinger saw a case three years ago; fever 103° and below; aspirated 30 minims of pus. Next day sent small aspirator and $\frac{1}{4}$ oz. aspirated. Got well after that.

Dr. Thompson thinks Dr. W. was fortunate in striking the abscess; patient of his had abscess and it was followed by diarrhea: recovered.

Dr. Williford is sure that it was not a circumscribed abscess; thinks there was not less than 1 $\frac{1}{2}$ pint of matter in that liver.

Dr. Jelks, Hot Springs, had a case which he diagnosed biliary calculi; made massage of gall bladder, and expressed quite a quantity of gall "sand." Tumor increased, however. That night a homeopath poulticed with peach leaves; vomited next day a lot of fecal matter, blood and pus; patient died. All inflammatory action is due to the products of pus microbe; there is no chance for absorption.

Dr. Elcan had similar experience with his son; uncontrollable constipation; expectorated vile material on third day; was in state of collapse; recovered gradually; in six or eight weeks able to get out; always had localized pain near liver.

Dr. Jelks reports two cases of peritonitis. Was called to see woman whose husband had had gonorrhea; had pain and inflammation in appendages; patient was imprudent; found her in collapse; diagnosis of pelvic peritonitis, due to leaking tube. Purged her at once and obtained immediate relief. She was well of the pelvic peritonitis in a few days. She is symptomatically cured. The other case was a woman

with inflammation of vagina, bladder, etc. For 48 hours she had pain in right iliac; prostrated; expected patient to die in 48 hours from leaking tube. He purged, and she got well. Dr. Jelks "breaks a lance" in favor of conservatism in tube cases.

THIRD SESSION.

Thursday, November 19, 8 P.M.

Dr. W. B. Rogers read a paper on external perineal urethrotomy. The paper was referred. (Appeared in Nov. issue.)

Dr. Crofford made verbal report of a hysterectomy done by him at his infirmary in the afternoon. He exhibited the specimen which was a rapidly growing uterine fibroid the size of a human head (10 months growth). He gave a resume of methods: The German method, of which Martin is the representative, is the intraperitoneal method, the pedicle being dropped back into the peritoneum. The English method, of which Hegar is the chief exponent, is extraperitoneal. Uterine tissue is so prone to shrink that there is great danger from hemorrhage, and in this respect the English method has the advantage. Howard Kelly devised a method, hoping to get the advantages of the German without its dangers. He ligates the uterine arteries, stitches the peritoneum into the stump, and lets the seam come within the abdominal wall. If hemorrhage occurs it may be stopped without opening the abdomen. It does not require a clamp or rubber constrictor. Hegar's is somewhat of an enucleation. Three years ago, speaker devised a pan-hysterectomy. The plan met with some favor in the East—thinks it the ideal operation in selected cases. The method always depends on case; if pedicle is small, Hegar's is preferable; if large, Kelly's. Discussion.

Dr. Maury: Dr. Crofford has given a very clear review of existing methods. For general applicability he prefers the method of Bantock, recently perfected by B. and Joseph Price. When there is no pedicle, the operator can always make one by enucleating. Price operates with 4 per cent. mortality by the modified Bantock.

Dr. Jelks wishes to mention two methods not spoken of: one is to enucleate down to mucous membrane; antiseptic precautions must be perfect, and buried sutures used to close

cavity completely. The pressure band can then be taken off and sutures removed; bleeding points will stop all oozing. Pedicle is then dropped back. The other is the method of Apostoli—electricity. Mr. Keith until recently had had the best statistics (5 per cent. mortality) and says he will do no more hysterectomies for fibroids. The electric procedure cures patients symptomatically.

Dr. Crofford in closing says he used Apostoli's method when he could; that is, when the myomatous element is in predominance; but fibroids cannot be influenced by electricity. Regarding the other method spoken of by Dr. Jelks, he believed that all modified operations tended toward leaving as little pedicle as possible; they all rim out as much as they can, hence, the desirability of his pan-hysterectomy when available.

Dr. Jno. I. Taylor read a paper on hay fever, and reported cases treated by his method three years ago. The operation was suggested by Sajous. The pathology of some forms was a neurasthenia and hypertrophy of filaments from the sphenopalatine ganglion. Sensitive points are searched out and seared through with an electrode, using detergents in the after treatment to remove the slough. Has not heard of a recurrence. The paper was discussed by Drs. Gillespie, Kennedy Jones, and Henning.

Dr. Henning then read a paper on the treatment of internal hemorrhoids, which appears in this issue.

Dr. Heber Jones wished to discuss two points: Possibility of injecting air into the large veins. Another source of danger is hemorrhage after the ulceration: saw one case who died from such a hemorrhage.

Dr. Thompson does not think he can diagnose without dilating; objects to injections: excises and stitches up; places stitches before cutting off (Whitehead's operation).

Dr. Williford, in referring to Dr. Jones' idea of danger from injecting of air, thinks Dr. Thompson's plan more dangerous, as it opens the floodgates for the inrush of a whole cyclone.

Dr. Maury has operated a great deal for hemorrhoids. Dr. Henning has given an excellent resume of treatment. There are a number of persons who object to operation who can be

cured by injection. Dr. VanBuren's method is to dilate sphincter, patient lying on right side, tenaculum is put in, spring scissors clip it, and then tie stalk with ligature.

Dr. Jelks tried injection plan once. Sent patient to her room, but was sent for in a big hurry; expected patient to die for an hour; she recovered. He favors Smith's operation; sears edge with Paquelin cautery. Danger of all operations for hemorrhoids is to let patient get up too early.

Dr. Henning in closing discussion says his clamp prevents entrance of air. As to danger of hemorrhage after injection there is no more than after any other procedure.

Dr. W. B. Rogers announced that the report of Committee on Surgery would be ready in time for publication.

[TO BE CONTINUED.]

The Memphis Journal of the Medical Sciences.

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EDITORIAL CORPS.

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Original articles and clinical reports solicited. Contributors are notified that all matter forwarded us, is received with the distinct understanding that said matter has never appeared in print, and will not be allowed to appear in any other journal prior to its publication in this.

Secretaries of medical and surgical societies will favor us by sending dates of regular meetings, with brief programme of important subjects coming before the meeting.

All matter must be in our hands on the tenth of the month preceding its publication.

The JOURNAL will be issued about the fifth of each month.

All communications should be addressed to

JAS. L. MINOR, M.D., Editor.

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Memphis, Tenn.

MALARIAL HEMATURIA.—The report of the chairman of the Committee on Malarial Hematuria of the Tri-State Society, is a sad commentary on the progressiveness of the profession of the Mississippi Valley. The chairman furnished blanks and material at his own expense. Nearly 2000 circulars were sent out, and only 30 answers were received announcing willingness to co-operate. Each of these was furnished enough material for reporting 10 cases. Only one physician in the entire Valley sent both specimens and clinical histories. This was Dr. Robt. White Barton, of Marion, Ark. 50 such contributors would keep the committee busy all winter, and fur-

nish valuable material for compilation. As to the examinations made, it appears that the fatal cases are all complicated with acute nephritis, a point most stoutly denied by writers in the Mississippi Valley. The blood examinations thus far made, showed only the small intracorpuseular forms of plasmodia, and the little round cells generally believed to be spores. Until the organisms of this variety of malarial fever are studied alive, which had not been at the time of making the report, little definite can be said as to peculiar malarial hematozoa in this disease. It is to be hoped that this committee will receive better support than has been accorded it thus far. Every Southern physician should make it his personal duty to contribute. Blanks will be furnished by the chairman, Dr. Wm. Krauss, of this place.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.—Our genial friend, the editor of the *Ophthalmic Record*, is lending his personal efforts and the influence of his journal to the establishment of a new ophthalmological society; and in the enthusiasm engendered thereby, coupled with search for arguments in favor of such an organization, he has been led into statements concerning the American Ophthalmological Society, which very slight investigation on his part would have proven incorrect. An editorial in the November issue of the *Ophthalmic Record*, says in reference to the American Ophthalmological Society: "While the statement published in a recent issue of the *Record* that their number was limited by law of the Society is not correct; it is nevertheless true that the organization is, to a certain extent, an exclusive one." Good professional standing, scientific attainments, and the practice of ophthalmology for five years, are the requisites for membership in the American Ophthalmological Society; and if there is anything but a commendable degree of exclusiveness in such requirements, we should like to have it pointed out. For the benefit of the *Ophthalmic Record*, and for general information, we reproduce what the Constitution of the American Ophthalmological Society has to say—and all it says—in regard to membership: "The members shall be graduates in medicine, of good professional standing, who have an interest in

ophthalmic science and art. No member shall attach, or suffer to be attached to his name, in any public manner, the title of 'oculist,' or any similar title, or shall announce in print that he gives special or exclusive attention to special practice. Candidates for membership shall have been engaged in the practice of ophthalmic surgery for at least five years, shall have given evidence of satisfactory scientific attainments, and shall have conducted themselves in conformity with the ethical rules of this Society."

**SUBMEMBRANOUS INJECTIONS OF CHLORINE WATER FOR DIPH-
THERIA.**—At the last meeting of the American Medical Association, Dr. A. Seibert of New York pointed out the fact that the various antiseptic applications in general use for diphtheria, reached only the surface of the membrane, leaving the underlying bacteria untouched, and hence submembranous applications should be made. This he accomplished by injecting an antiseptic into the mucous membrane under the affected part through specially devised hypodermic needle-points attached to an ordinary hypodermic syringe. Chlorine water he found to be the best antiseptic, and of this, which should always be freshly prepared for use, about twenty minims was the quantity to be injected. Dr. Seibert reported thirty-five cases of pharyngeal diphtheria treated by this method in conjunction with the usual general remedies, with a loss of only two cases, and these from complications.

Dr. B. G. Henning of Memphis, at the last meeting of the Tri-State Medical Association, reported a number of cases of diphtheria treated by Seibert's method with astonishingly good results. It is to be hoped that this method of treatment will be more extensively tried, and that it will prove as beneficial in the hands of others as in the instances that we have cited.

GEROMORPHISM is the name given to a new cutaneous disease described by Drs. Charcot and Souques. The word means age-like, and the disease produces an appearance of senility. The case reported was that of a woman whose age is twenty-one, but who looks so old that her father, aged fifty-two, has occasionally been asked if she was not his mother.

Otherwise the girl has nothing old-looking about her. The wrinkling began about ten years before, at which time she received a great fright. The wrinkling changes took place so rapidly that her friends were unable to recognize her if they had not seen her within the period of a fortnight. No form of treatment has been competent to improve her condition.—*Ex.*

AIR EXCHANGE, in the lungs, has lately been found by Hen-riques to be under control of the vagus, and not to depend solely, as was formerly supposed, upon tension of gases in the venous blood.

BOOK REVIEWS.

PRACTICAL ANATOMY. By Henry C. Bœnning.

This work contains 500 pages illustrated with 200 wood engravings, which are extra good and prove quite a help to the student in his efforts to master anatomy. The work is not only a textbook of anatomy, but is so arranged as to admirably fill the office of a guide to the dissector. It is in accord with all the latest teachings of anatomy, and while it treats fully on all that is of practical value to the physician and surgeon, it lacks that voluminosity oftentimes objectionable in many works on this subject. The chapter on the perineum, with accompanying wood-cut, will be read with much interest by the student. Price, cloth or oilcloth, \$2.50. Published by F. A. Davis, Philadelphia, Pa.

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Memphis Journal of the Medical Sciences

MEMPHIS, TENN., JANUARY, 1892.

SOCIETY MEETINGS.

TRI-STATE MEDICAL SOCIETY OF MISSISSIPPI, ARKANSAS AND TENNESSEE.

FOURTH SESSION.

Friday, November 20, 10 A.M.

The first paper was that of Dr. A. B. Holder on intestinal obstruction. The paper was referred. Discussion.

Dr. Jelks of Hot Springs: As a rule cases come before the surgeon too late for operation because of delayed diagnosis. Hypodermics of morphine are given, and cause obscuring of symptoms. The diagnosis is very difficult. It lies between: 1st, obstruction; 2d, peritonitis; 3d, colic. In all you have distention; in all you have pain. I prefer salts to castor oil as a diagnostic medicine. If the case is colic, there is purging. Dr. Holder's statistics of 74 per cent. obstructions being due to stricture are surprising. In this case the stricture could not be reached by an operation, it being in the upper part of the rectum. If there are adhesive bands there is no hope without an operation; if there is septic peritonitis we should not operate, as we cannot save the patient, and will thus prevent suitable cases from submitting to an operation. If operations were not usually done as a dernier resort, our results would be better.

Dr. Crofford: I have operated a few times. I remember a case I saw six months ago in a patient I was called to see 100 miles from Memphis. Told patient's friends there might be a ghost of a chance without an operation, and suggested the operation; found abdomen enormously distended, puru-

lent peritonitis, and many adhesions; she recovered. I never saw stricture in my cases. Opium is of benefit in some cases, if given in doses to get the relaxing effect of the drug. Theoretically salts deplete the peritoneal cavity, but my experience is in favor of castor oil. I do not believe in the anti-opium treatment carried to the extent Jos. Price does, nor do I agree with Skene, who recently went back to the old opium treatment. In regard to Dr. Holder's case, we could not promise patient a recovery if operated on, nor assure him that without an operation his case was hopeless. Only three things could have been done: 1st, dilatation; in this case it was too high up (8 inches from anus); 2d, making a preternatural anus—patient is better dead; 3d, expectant treatment, which was the course pursued.

Dr. Saunders: I believe in trying to arrive at a correct diagnosis by palpation; above all, examine the right iliac region; the presence of shock is the most important sign; castor oil is preferable to salts: if oil fails, I use belladonna, nux vomica, and hyoscyamus. The recuperative power of nature is wonderful; even in cases of intussusception, portions of intestine are pushed off and the patient recovers.

Dr. H. C. Rogers of Hot Springs: I would like for the doctor to tell me how soon to operate. I saw two cases who recovered under the waiting treatment; they were given henbane, belladonna, and nux vomica.

Dr. Wm. Krauss of Memphis read a voluntary paper, with presentation of case, on some remarkable results from the use of pyoktanin injections in a case of carcinoma. The case was apparently well when presented. A microscopical examination before treatment confirmed the diagnosis of epithelioma.

Dr. J. L. Minor of Memphis read a paper: Report of case of deafness. Aspergillus; perforation of drum membrane; artificial drum. The paper was referred to Committee on Publication.

Dr. G. B. Gillespie, Covington, Tenn.: Paper: Report of cases of laparotomy and other surgical operations. The paper was discussed and referred.

FIFTH SESSION.

Friday, November 20, 2 P.M.

Dr. H. L. Williford of Memphis: Paper on typhoid fever and its differential diagnosis from other continued fevers.

Dr. H. C. Dunnivant: Many will take issue with Dr. Williford as to intermediate ground between typhoid and malarial fever; they will also disagree to the proposition that there is always diarrhea in typhoid, and not in malarial fever.

Dr. G. B. Malone: I have not heard all of the paper; I also disagree as to malarial fever never being accompanied by diarrhea. I think Dr. Williford is wrong. Typhoid is a one term fever; this is not the case with malarial. In continued malarial fevers the fever is liver fever. I never use alcohol; it is no stimulant; strychnine is the thing; it supports the flagging system, and helps to eliminate the poison. As regards antipyretics, I never use them; they cause an increased temperature when reaction sets in. The remedy most neglected nowadays in typhoid fever is turpentine; it is antipyretic because it promotes local healing, and is antiseptic.

Dr. Hammontree: Typhoid and malarial are distinct diseases—each has its specific cause. Glands are involved in typhoid; not in malarial. As to antipyretics Norwood's tincture is the sheet anchor, now much neglected.

Dr. Williford says his friend Dunnivant misunderstood him—did not mention typho-malarial fever; but malaria can be a concomitant. Diarrhea is always present in typhoid, since there is a catarrhal inflammation, neurotic tissue to be thrown off, etc.; agrees with Malone that turpentine is a good remedy; says antipyretics do have good influence, and he always uses them.

Dr. Dunnivant: I never saw continued malarial fever; malarial fevers always yield to quinine, if you only give enough.

Dr. Heber Jones was called for. He said: I cannot break up continued fever with quinine. As to antipyretics: I find a few days treatment with quinine does all it will do. so then I abandon it after that. I thought antipyretics were used by everybody—but they should be used moderately. Keep the temperature within safe limits, say below 101°; I use anti-febrin by preference.

Dr. M. G. Thompson of Hot Springs read a paper on observations in bone surgery. Referred.

Dr. Jelks : All inflammation is due to microbial products, except that produced by chemical agents. There is acute and chronic inflammation of bone ; acute is usually the result of microbial—always, if there is chill. Chronic is tubercular and syphilitic ; if clot breaks down, you may redisinfect. If Senn's bone chips are a fad, they are a good one (describes histogenesis of bone very classically).

Dr. Williams was called upon : Is in love with Schede's operation. In one case just dismissed, part of clot failed to organize, but the whole process was entirely aseptic ; will abandon drainage hereafter ; thinks Senn's chips inferior to nature's efforts ; prevent filling with clot.

Thompson closes discussion.

Dr. Turner read paper on peripheral neuritis. Histology : peripheral neuritis is usually an exudative inflammation, causing death from pressure. Causes : 1st, trauma ; 2d, extension of adjacent inflammation ; 3d, cold—may be mistaken for rheumatism ; 4th, gout, syphilis, cancer ; 5th, acute fevers ; 6th, neighborhood of bed sore ; 7th, result of toxic drugs ; 8th, alcoholism. Symptoms : pain, tingling, loss of faradic irritability, increase of galvanic irritability. Treatment : rest, light diet, warm poultice, evacuations, gentle rubbing in acute stage, later massage ; electricity is harmful in acute neuritis.

SIXTH SESSION.

7:30 P.M.

Vice-President M. G. Thompson of Hot Springs in the chair. Papers : Sympathetic ophthalmia, by Dr. Sinclair ; deafness from hypertrophied tonsils, by Dr. Hill ; indications for surgical treatment by abdominal section in the puerperal fevers, by Dr. Maury ; this paper was discussed by Drs. Jelks, Taylor, Crofford, and Henning. The paper and discussion were too lengthy to be reported here, and consumed almost the entire session.

Dr. L. L. Williams of U. S. Marine-Hospital Service, read a paper on fracture of skull with wound of arm center, which was referred to Committee on Publication.

Rest as a therapeutic agent, a paper by Dr. J. C. Minor of Hot Springs, was read by Dr. H. C. Rogers of that city.

The meeting then adjourned with a resolution to assess members \$1.00 additional to defray expenses of printing the transactions, a resolution to make the dues \$2.00, and the usual resolution of thanks to hotels, railroads, public press, secretary and treasurer of the society, all of which were unanimously carried.

DEPARTMENT OF
PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

What a Prominent Physician Says of Caulocorea.

Editor N. E. Med. Monthly—Believing as I do, that an intelligent physician should adapt his remedies to the case before him, and that in order to do so, if he uses a compound it must, as a general rule, be the child of his own brain, every ingredient in which must have a direct adaptation to the case for which it is compounded, I am, on general principles, opposed to the use of the many proprietary compounds with which the drug market of the present time is flooded; and many of which are, as I believe, in too general use by physicians. But I have found, among these proprietary articles, one which I have used somewhat extensively for the last year, and which has given results so eminently satisfactory that, if it were removed from the market, I should be at a great loss to know how to fill its place in treating the diseases for which it is recommended. I refer to Caulocorea, manufactured by Caulocorea Mfg. Co., Portland, Me. I have made a specialty of the treatment of diseases of females for the last ten years, and for a year or more I was importuned by some of my brother physicians to give this medicine a trial, but refused for a long time to do so for the reason stated at the beginning of this letter; but since testing its virtues, I am prescribing it almost daily, with a confidence that I feel in few other remedies. I could relate scores of cases where its virtues have

been manifest, but to save your valuable time and space will only speak of two or three.

Case I. Mrs. B., aged 42. Climacteric. Menstruation irregular and so profuse as to cause her physician and friends to be seriously alarmed for fear she would flow to death. She has several times flowed until she fainted. Was called in consultation and found her in bed, where she had been for more than six months, completely exsanguinated, suffering from piles, constipation, nausea, neuralgia, etc. Prescribed Caulocorea, which she took for two months, and, as she was then relieved of her flowing, and around the house doing some light work, she stopped the medicine, but after a short time the flowing and other bad symptoms returned, to be again relieved by the same remedy, which she is now taking, and says she cannot live without.

Case II. Mrs. S. came to me complaining that she could not carry a baby for more than 3 months, and that, as she perhaps somewhat extravagantly expressed it, she had lost more than 20 babies in the last 4 years. She was at the time about two months pregnant. I put her on Caulocorea, giving her at the same time some instructions as to her mode of living. I did not see her again until a short time since when she gave birth to a living child at full term.

Case III. Mrs. P. Miscarried at 3 months. Three days afterward went to ride over a very rough road, which brought on a severe attack of flowing. I was sent for in consultation about ten days after this, and found her suffering from metritis, with severe attacks of flowing every few days, which had produced great weakness and prostration. The metritis yielded to appropriate treatment but the flowing spells continued. Suspecting a piece of retained placenta as the cause of this, I made a digital examination of the cavity of the uterus, but found nothing but a relaxed and softened condition. I then put her on Caulocorea and the flowing spells soon subsided, and she recovered her health. I might go on and relate cases of leucorrhea, chronic inflammation, ovarian irritation, dysmenorrhea, etc., cured or relieved by the same remedy, but I fear I have already imposed upon your patience and good nature.

Fraternally yours, W. E. TARBELL, M.D.

FORMULÆ.

CROUP.—Prof. N. S. Davis says all the indications for treatment in croup, in the mild or superficial form of the disease, can be fulfilled by the administration of :

℞ Syr. ipecac, ʒix.
 Syr. scillæ comp., ʒiss.
 Tinct. opii camph., ʒij. M.

Sig.—Half teaspoonful every three or four hours.—*Ind. Med. Jour.*

RHEUMATISM.—The following prescription is a good combination in rheumatism. I have tested it personally, and know whereof I speak :

℞ Pot. iodide, ʒiiss.
 Tr. cimicifuga, ʒiss.
 Vin. colch. sem., ʒj.
 El. ext. henbane, ʒss.
 Simple syrup, ʒv. M.

Sig.—Teaspoonful well diluted with water every four hours.
Dr. Conger, in N. E. Med. Monthly.

NERVOUS COUGH.—Prof. Bartholow frequently orders :

℞ Acidi hydrocyanic dil., ʒj.
 Tinct. sanguinaræ, ʒss.
 Syr. senegæ, ʒiv.
 Aquæ lauro-cerasi, ʒviij.
 Syr. tolu, ʒij. M.

Sig.—From 10 drops to a teaspoonful every four hours, according to the age of the patient.

LOCAL ANESTHESIA FOR SLIGHT OPERATIONS.—

℞ Chloroform, 10 parts.
 Sulphuric ether, 15 parts.
 Menthol 1 part. M.

Sig.—To be used with an atomizer. The anesthesia lasts from two to ten minutes.—*Med. News.*

CHRONIC ALCOHOLISM.—

℞ Tinct. capsici, 2 drams.
 Tinct. nucis vom., 2 drams.
 Celerina (Rio), 1½ oz.
 Syr. bromide comp. (Peacock), 2 oz. M.

Sig.—Teaspoonful in water, four times daily. Very valuable for old, worn-out drunkards.—*Med. World.*

**DEPARTMENT OF
GENERAL SURGERY.**

CONDUCTED BY
W. B. ROGERS, M. D.

APPENDICITIS.

Report of Five Cases Operated on.*

BY W. B. ROGERS, M.D.,

Prof. Principles and Practice of Surgery and Clinical Surgery in Memphis
Hospital Medical College, Memphis, Tenn.

The subject of appendicitis has been more thoroughly studied and discussed than any other one subject before the profession during the past three years. The etiology and general pathology have been agreed upon; the symptomatology in even obscure cases has been clearly brought out, and its diagnostic points fully impressed upon the minds of the profession, but the medical and surgical wings of the profession fail as yet to move in harmony on the prognosis or dangers attendant upon the disease, and the consequent indications in its treatment. The question in dispute is: "to cut, or not to cut?" We learn that in the discussion of this subject of treatment of appendicitis before the Philadelphia Medical Society at a recent meeting, no less a luminary than England's surgeon, Bryant, joined the ably represented medical wing in counseling delay in operating. On the other hand, the ablest surgeons in America have presented such an array of successful cases, with so low a rate of mortality, that we can hardly resist the dictum, "operate in all cases at once—the operation is less dangerous than the disease."

In presenting my five cases operated upon, I do so with the feeling that every man's experience is worth something to the profession. A careful reading of these cases will show that in each the operation should have been done earlier; that by delay five lives were exposed to unnecessary danger—one was lost during a delay, based on "general symptoms of improvement." I heartily concur in the enunciated rule, that "the

* Prepared for the meeting of the Tri-State Medical Association of Mississippi, Arkansas, and Tennessee, November, 1891.

remedy, an early operation, is less dangerous than the disease," the exceptions being few.

Case I. Chronic Relapsing Appendicitis. To A.B.C. a cathartic was exhibited on the night of Jan. 12, 1890, for a feeling of indisposition, though the bowels were, and had been regular. One hour later nausea came on, and the cathartic pills and stomach contents were vomited. Nausea continued more or less during night, and substance ejected assumed character of "bile." Soon after vomiting began, pain appeared in stomach, and seemed to pass to duodenum, where it remained until morning, to yield to morphine, which was continued for twenty-four hours. Bowels acted frequently but scantily during night. In morning there was some abdominal tenderness, which was a little more marked over the right iliac region than elsewhere. There was some increase of temperature and acceleration of pulse; recumbent posture maintained for three days, during which liquid diet was exhibited, and capsules containing opium, belladonna, and hyoscyamus, were administered. Not a vestige of the trouble remained at the end of a week. No indiscretion of diet, or other cause for this attack, could be discovered. (Two other persons in the same hotel suffered from somewhat similar attacks, coming on about the same hour, without any assignable cause. They had no subsequent attacks.)

At intervals of two months, attacks somewhat similar to that above described would occur, without warning or known cause. Neither feasting nor fasting, solid food nor liquid diet, loose bowels nor constipation, a feeling of perfect health nor indisposition, working nor resting, seemed to influence them. The attacks always began with pain referable to the stomach, which in the course of a few hours would extend to and remain about the right iliac region. In a few of the attacks, there were nausea and vomiting; in some, the bowels were loose at the beginning of the attack, and would remain so throughout; in others, there was constipation. It was usually noted, however, that purgation afforded some relief. There was always abdominal tenderness, which was usually greatest over the right iliac region. Temperature would reach 102° or 103°; pulse, 100 to 120. The treatment was the same as dur-

ing the first attack ; and usually at the expiration of a week, not a sign of the disease could be discovered. This continued to be the case until the latter part of March, 1891, when, after an attack of the usual kind, it was noted that the temperature continued to range from 99° to 100° , and that neither appetite, buoyancy nor strength returned ; this latter condition continued, for four months—up to the time of the operation for appendicitis ; it resisted every form of treatment.

During the latter part of May, '91, an abdominal attack of more than usual severity was experienced ; for the first time in the history of the disease, there was marked tenderness and some tumefaction over the cæcum. After this attack subsided, a spot of induration, apparently an inch in diameter and two inches in length, over the area of the appendix, could be discovered, where pressure elicited slight pain. One month later, another attack of appendicitis occurred ; two weeks later, another ; and ten days later, the last one, prior to the operation, was experienced.

Operation. July 20, '91. I was assisted by Drs. Maury. Saunders, and S. A. Rogers. A five-inch incision was made parallel with the median line (with its center just over McBurney's point), through the abdominal wall, opening peritoneum the full length of the incision. The appendix was after a short search found rather below its normal site, the greater portion crossing the linea ilio-pectinea, lying within and attached to the posterior lateral wall of the true pelvis. A loop of intestine surrounded the appendix, and was closely attached by adhesions. After some little difficulty, I passed my finger beneath the base of the appendix, and succeeded in gently separating the adhesions, bringing the appendix into view. It was quite hard, and swollen to three times its normal size. A silk ligature was tied around tightly about one-third inch from the cæcum, and the appendix cut off. It contained no fecal matter, but the stump was touched with carbolic acid ; a gauze drain was placed touching the stump of the appendix, and leading to lower end of the incision. the upper two-thirds of which was closed by silk sutures. The usual dressing of gauze and cotton was applied. Patient sustained very little shock and was put to bed in good condition.

Nothing of moment occurred to mar the steady progress to recovery from the operation. The temperature never went higher than 101° , and was but for one day over 100° ; in eight days temperature was normal; on the thirty-fifth day he sat up for one hour; that night he had a slight rigor with fever; next morning a cough, great prostration, fever and a pneumonia at base of right lung confined to posterior aspect; his condition was critical for eight days; then he steadily improved, and on Sept. 10th resumed his business. Today he is enjoying excellent health.

I saw this patient on the second day of the first attack in January, '90, mentioned in the history of his case; The symptoms pointed to a mild attack of appendicitis, and I so pronounced it. From that time on he had attacks of colic at regular bimonthly intervals, and which by the family were looked upon as the result of indiscretion in eating. I did not see him, however, in any of these numerous attacks because of their short duration, until some days after the attack noted in March, '91, when he had so far recovered as to attempt to attend his business. I found him at work in his office though quite feeble; pulse was rapid, temperature 100° ; this condition had been so for over a week. I sent him to bed, and next morning found him with temperature 99° , pulse 84; comfortable, but tender at McBurney's point. I watched the case closely, and in a few days rest all tenderness subsided over the appendix and abdomen; the fever continued to reach $99\frac{1}{2}^{\circ}$ each afternoon. After some days I was almost of the belief that it was a continued (typhoid) type of fever. He steadily lost ground, and I advised a change. During his absence of three weeks he had a well-marked, acute attack of appendicitis, and returned home for operation. He improved so rapidly on reaching home for ten days that I advised delay in operating, but another and then another attack followed in rapid succession—when I operated with results given.

This case was one of chronic relapsing appendicitis. Five small shallow ulcers were found in the mucous lining of the appendix. The thickness of the appendix walls rather precluded the idea of danger of early perforation, though under continued repetition of acute inflammation there is no

telling how soon perforation would have occurred. As it was, the case in its mildest aspect was one of chronic invalidism—six months having elapsed since he had been able to attend his office work; and the prospects were of a continued existence only in bed.

Case II. Walter Whitehead, age 15 years, residence Greenwood, Miss., was brought to me for surgical assistance, with history as follows: General health had been excellent to April 19, 1890, when he had a supposed attack of mumps. Four days later, doing well, was exposed, thinly clad, to a brisk wind for several hours at night; was taken with violent pain in right iliac region, accompanied by high fever. It was suspected that metastasis of mumps had taken place, but in a day or two this was negatived, and physicians pronounced the case typho-malarial fever, and as such treated it for nearly four weeks, when it was determined that pus existed in the peritoneal cavity, and he was brought to Memphis.

I found him very much emaciated, and exceedingly nervous; bowels locked for several days; urine scant; appetite nil: temperature 101; pulse 120, weak, complaining incessantly of pain in his abdomen, which was sensitive to slightest touch and somewhat distended, with gas in middle and upper zone. The right iliac region, and partly the hypogastric, presented distinct flatness on percussion; both regions were bulging, and two and a half inches below the umbilicus in median line there was a tendency to "pointing," with a sense of fluctuation. Exploratory puncture determined pus. An anesthetic was given, and an incision three inches long was made in the median line, below the umbilicus; the abdominal cavity was opened, and half pint of exceedingly offensive pus was evacuated. The cavity containing the pus was formed posteriorly by a layer of intestines firmly united by inflammatory adhesions, anteriorly was the abdominal wall. The pus was within the abdominal cavity, but not diffused among the intestines. My finger passed readily to the site of the appendix, but it could not be made out. The pus cavity was thoroughly irrigated with hot bichloride solution, packed with gauze, and patient put to bed. May 29, temperature 96, pulse 90, much nausea. nourishing enemata every four hours. May 30, temperature

98, pulse 72; bowels moved frequently, dysenteric in character. May 31, temperature 98, pulse 70; wound dressed; condition steadily improved until he left June 8th for his home. He soon regained his usual health and strength, and has remained well up to present writing.

The appendix was not found, nor was any fecal mass or foreign body found among the contents of the abscess, yet the history of the suddenness of the attack, the course and termination of the case, all point to the appendix as the original site of the trouble.

Case III. H. J. Hartes, 34 years of age, previous general health good, with no history of previous inflammation at site of appendix. On the 20th of January, 1891, after having eaten heartily, was taken with pain in the lower abdomen; had rigor, and was much prostrated. He was seen by physician in the neighborhood, who treated him for ten days without succeeding in getting his bowels acted on. He arrived at my Infirmary with morning temperature 102; bowels acted three times immediately on arrival; temperature fell to 100, and he was so very much more comfortable that I deferred operation on tumor, located in right iliac fossa, and which I diagnosed an appendicitis, or rather an inflammatory exudate due to an appendicitis. He continued to improve, and the tumor diminished perceptibly in dimensions for three days, when temperature began rising a little. On the following day his temperature was 102, pulse 100. Assisted by Dr. D. D. Saunders, I made the incision parallel with and just above Poupart's ligament, down to the peritoneum, and then separating that membrane from iliac fossa worked down under the mass, and with grooved director explored and found pus, then, after Hilton's method, enlarged the opening and evacuated a pint of pus, with some small, hard fecal concretions; perforation had undoubtedly taken place. The pus had thus far been partitioned off from the general peritoneal cavity by adhesions formed between the coils of intestines; several coils were gently separated to liberate pus contained in small pockets opening into the main one. After a thorough irrigation the cavity and its ramifications were packed with gauze and dressings applied. The following day a quantity of fecal matter

was found on the discharges, and this continued for five days, gradually disappearing. The wound appeared healthy, and his general condition steadily improved, until at end of three weeks he was able to be up. A sinus still remained leading down into the pelvis, and which was twice daily subjected to bichloride irrigation, but without any better effect than to limit the discharge from the sinus to a minimum. Bowels acted only on alternate days, and then when acted on by oil or salts, accompanied by great pain in lower zone. This condition remained unchanged until April 3, when in the night he was taken with severe pain in the lower abdomen and around the umbilicus; a rigor soon followed, and then temperature 103. The following morning temperature 103, pulse 140; at 4 P.M. temperature 104, pulse 160, pain intolerable, abdomen tightly distended, and bowels still locked. Assisted by Drs. Saunders and Crofford I did the following operation: The parts and sinus thoroughly irrigated with hot bichloride solution. An incision four inches long, parallel with Poupart's ligament, was made on a grooved director, laying open the anterior wall of the sinus leading to the pelvis. The posterior wall of the sinus—the peritoneum—was laid open its full length, thus throwing the entire lining of the sinus continuous with the peritoneal cavity, and a careful search was made for pus, but none was found. The appendix, swollen, inflamed and attached to the wall of the pelvis, just external to its proper site, was ligated and removed. The intestines which came into view were not materially inflamed. A glass drain tube was passed to the bottom of the old sinus, resting at the bottom of the peritoneal cavity in the pelvis; this was packed around with gauze, and a piece of gauze gently packed to bottom of the tube; dressings applied.

Patient's condition was critical for three days, when bowels acted freely and he steadily improved. Without further detail of the case his general condition is now good, weight about his normal, but a sinus yet remains leading into the true pelvis, and which neither discharges much nor heals under various stimulating injections.

Case IV. In September, '87, Geo. Edwards, a laboring man of previous good health, was taken sick with pain in his abdo-

men, fever, etc. The usual home remedies, oil, laudanum, quinine, and the like, were administered with no effect toward a cure. The history of the case is incomplete up to the tenth day, when Dr. S. A. Rogers was called in and found the man with fever, feeble pulse, abdomen somewhat distended, and bowels constipated; had had no action since taken sick. Symptoms of peritonitis present, but apparently on the decline. A distinct tumor was made out in the right iliac region, over which the skin was œdematous, and was slightly discolored red. The diagnosis of a perityphilitic collection of pus was made, and I saw the case in consultation a few hours later, when I opened the pus collection by an incision through the abdominal wall just above and parallel with outer half of Poupart's ligament, evacuated half pint of exceedingly bad-smelling pus, irrigated the abscess cavity thoroughly, and applied hot fomentations. The patient's bowels moved the next morning, and he made an excellent recovery. No search was made for the vermiform appendix.

Case V. David P., 14 years of age; seen in consultation with Dr. W. J. Jones, who had diagnosed appendicitis. The case was a typical one; taken with excruciating pain in abdomen, rigor, fever; gradual improvement for several days, then able to be up—only to find a recurrence of the trouble. I saw him in the evening at ten o'clock; temperature $101\frac{1}{2}$, pulse 108; better than in the forenoon. Tumor at site of appendix; bowels had acted during the day. Next morning, still improved condition, both local and general; and so continued to improve in every way for three days. Appetite returned, bowels acting, temperature low and falling, pulse improving, resting well,—tumor decreasing, and tenderness diminishing. The morning of 4th day of my attendance there was slight increase in temperature over previous evening, pulse quicker (to 108), tenderness increased, with tympanitis appearing; had spent bad night. Operation was done at once, by incision above and parallel with Poupart's ligament; pus, one-half tea-cupful evacuated; two fecal concretions, size of garden pea, discovered; appendix bound down, parts thoroughly irrigated. No effort was made to separate adhesions between coils of intestines, and utmost care taken, not to tear up any adhesions or in

any way open the pus pocket into the general peritoneal cavity, from which the pus had thus far been held apart, or encysted, by wall of intestines. Drainage prepared for and dressings applied; patient put to bed; pulse 96. He aroused in short while from anesthetic to complain of pain in lower abdomen; a rigor, temperature 103° ; rapid sinking, death in ten hours; no post mortem.

The unfortunate termination of this case is the strongest vindication of the rule: operate at once, the disease is more dangerous than the remedy. I went prepared to operate the first night, but was led, misled, by the improved symptoms to delay until the morrow. Everything was kept in readiness, assistants on hand at each night and morning visit, for the operation, but each time the symptoms were better, and thus I delayed. The course pursued was the conservative one. Only three weeks before I had pursued this conservative course in a case neighboring to this, with almost identical local and general symptoms, and which recovered. And I could mention some ten other cases (varying in degree) of this affection, that I have seen recover under medical treatment. Lulled by this past experience as to the danger, and misled by the symptoms, in the case in question, the delay doubtless allowed a few drops of the encysted pus to find its way out into the general peritoneal cavity before the operation was done.

THE ANNALS OF SURGERY.

We take pleasure in again commending this journal to those of our readers who are not already familiar with its worth. We venture the assertion that there is not a better journal published on any special branch in medicine than the *Annals of Surgery*. Those just beginning the practice of surgery will find the practical teachings of the day; those old in the service will find matters of interest throughout each number. It contains the cream of surgical literature of this continent and Europe. It is published simultaneously in London and in America (St. Louis, Mo.), and its publishers, Chambers & Co., deserve high compliment on the worth of this publication.

A MANUAL OF VENEREAL DISEASES. Being an epitome of the most approved treatment. By Everett M. Cutrer, A.M., M.D., and Jas. R. Hayden, M.D., both of New York.

This is the title of a work fresh from the press of Lea Bros. & Co., Philadelphia. We have read this work carefully and find in it many practical hints in the treatment of the diseases named. The section on syphilis is complete, and yet not voluminous. On the whole the little volume supplies the want of both the practitioner and the student of medicine.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

A STUDY

**Relative to the Functions of the Reproductive Apparatus in
American Indian Women.***

A careful examination of the Indian question as it is presented to the people of the United States must lead to the conclusion that the Indians must submit either to civilization or extermination. Civilization and savagery cannot coexist at close contact; savagery always has to yield. The lines are fast closing around savages and savage institutions in this country, and *they* will have to yield. To break up tribal distinctions, give the Indians lands in severalty, educate them, abolish polygamy, barbarous customs, heathenish practices, and keep whisky away from them, is the present policy of the Indian Bureau, and it is wise, just and hopeful.

The author's investigation was made with the approval and co-operation of the Hon. Thomas J. Morgan, Indian Commissioner, the late Surgeon-General Dr. J. D. Baxter, and the present Surgeon-General Dr. Charles Sutherland, to whom he wishes publicly to express his gratitude. He also desires to publicly thank the Indian agents, physicians employed at Indian agencies, and army surgeons who have co-operated with and advised him, and without whose generous assistance the investigation could not have been made. The data were obtained in the face of the greatest obstacles, for Indians are ignorant, superstitious, prejudiced and suspicious, and the time required in many instances was considerable, perhaps more than was warranted by the results to be obtained. From twenty-eight Indian agencies and army posts interesting facts were gathered, all the correspondents being in immediate communication with the Indians, some of them for many years, and all being entirely reliable sources of information. The report of the Indian Commissioner for 1890 was also freely consulted, and the source of much valuable information.

*Read before Am. Gynec. Society by Andrew F. Currier, M.D., New York.

The subjects on which information was sought included menstruation, conception, gestation, parturition, the puerperal period, the menopause, sexual appetite, pelvic disease, including venereal and malignant, and a variety of others of kindred nature. In children the great frequency of glandular disease, including the venereal, was noted, and the great mortality among infants. Puberty was reached in the southern tribes, the Apaches, Mojaves and others, quite early, the average, in a given number of Apaches, being $12\frac{1}{2}$ years. In the northern tribes it was reached later, the average, in a given number of Cheyennes and Arapahoes, being 17 years. In a large number of Sioux the average age was 15.11 years. In most of the other tribes the average age was under 15, and it was believed that savage life *per se* neither hastened nor retarded puberty, but that climate, occupation and hereditary tendency were the factors of greatest importance. With very many Indian women, especially the more degraded, the coming, course and departure of menstruation were alike matters of indifference. They neither knew nor cared as to its duration. At four agencies the duration had been observed, and the limits given were two and six days. Seldom was there any pain with menstruation, though in some of the tribes it was said to be present at the first menstruation, but rarely afterward. Among the Indians who have become civilized painful menstruation was not infrequent. The quantity of blood lost at menstruation was almost invariably a matter of indifference. Only a single case of amenorrhœa was reported.

The advent of puberty is celebrated by barbarous dances in some of the tribes. At the Quapaw agency (Ind. Ter.) the "stamp dance" is thus celebrated. At Sound Valley agency (Cal.) the menstruating girl joins in a furious dance with older women, keeping it up until thoroughly exhausted. At the Neah Bay agency (Wash.) the menstruating girl fasts three days, then is stripped naked and washed in a stream in the presence of her friends and relatives. After this her parents give a *pil pottlach* (giving away of blood), which is very disgusting, and said to be analagous to a birthday party.

The menopause seldom caused any trouble. The age at which it comes showed as wide a diversity as it does among

civilized women, and there was also the same variety as to duration. It may come abruptly, or it may require several years.

Marriage was said to be mainly a matter of convenience or inclination in most of the tribes, with nothing especially serious or binding about it, either party leaving the other as the notion prompted. Polygamy was still common in some of the tribes, though the government was endeavoring to break it up. Virtue and chastity were ignored altogether, or but lightly esteemed in all but a few of the tribes. A change for the better in such matters is most marked and gratifying in some of the localities which have been under educational and religious influences.

Among the Klamaths (Oreg.) young men are not infrequently married to old women. Among the Crows and Assiniboines marriage arrangements are between a girl's parents and her suitor. The latter pays a horse for her, or some other object of value, the girl then measures the man for a pair of moccasins as a sign of acceptance, goes to his lodge, and is henceforth his wife.

The marriage and divorce customs among the civilized Cherokees are much the same as among intelligent whites. The ceremony may be either a simple agreement between the man and the woman, or the more formal one of the Church or State. Cherokees are said to be more virtuous and strict in regard to the marriage relation than whites.

Marriage in most tribes is consummated early in life, at 17 or under; in many cases almost as soon as puberty is reached.

Conception and gestation are favored in the majority of the tribes by an ardent sexual appetite and out-of-door life, and large families of children are of frequent occurrence. Abortion seldom occurs as the result of the severe labor and other trials to which Indian women are all subject, but is common enough as the result of syphilis and criminal interference. Among the more degraded and physically inferior tribes the families of children are small. In almost all the tribes the infantile mortality is very great. The struggle for existence on the part of an Indian baby is a severe one.

Some of the women drink decoctions of certain herbs to

prevent conception. The Crows and Assiniboines use the most violent means for producing abortion. One of them consists in thrusting a sharp stick into the vagina and womb, thus rupturing the ovum. Another consists in causing the patient to rest her belly against the top of a stake which is driven into the ground, and about two feet high, and whirl around upon this until the fetus is expelled. In yet another the patient lies on her back on the ground, a large board is laid across her belly, and upon this two or three of her female friends, in turn, stand or jump until the blood gushes from the vagina; or the belly is kneaded or tramped upon until the fetus is expelled.

Among these Indians last mentioned, when a baby is born the umbilical cord is cut with a *new* butcher-knife, the stump is well greased, and the infant is then thrust into a laced sack, made of blue cloth, containing pulverized bull's manure or the inside bark of the cottonwood tree. This lining, with the child's discharges, is changed three or four times daily. When the stump of the cord drops off it is preserved in a beaded pouch and worn around the neck or waist as long as the person lives. Parturition is usually a natural and easy process with Indian women. One of my correspondents graphically said it was about as easy as for a cow to have a calf. With many women no assistance during that process is required or tolerated. With others, midwives are employed, and these manifest varying degrees of superstition and ignorance. Occasionally an herb doctor will be called to attend a woman in confinement, but, as a rule, no man, whether a physician or not, is expected or allowed near a woman at such a time. Where the Indians are becoming educated and civilized they are gaining more and more confidence in white physicians, and occasionally one will be called to attend a confinement, especially if any complication has arisen. The favorite position during labor is the kneeling one, the arms, chest and head resting upon a support of some character; but by many the squatting position is preferred. The ease with which delivery is accomplished in these positions, and the simplicity of the whole procedure, is not without suggestiveness to those of us who are endeavoring to carry out the

multitudinous details of modern antiseptic midwifery. The lying-in chamber and the lying-in bed for the tribes which have had little contact with civilization do not exist. Delivery takes place in the open air, in the bushes, by the side of a stream, perhaps when the tribe is on a march. The regular duties of the squaw are not long interrupted by parturition, and if her party is on the march she hurries on to overtake them after the birth of her baby.

In some tribes it is the custom to facilitate the expulsion of the placenta by tickling the parturient's nose with a feather and provoking sneezing.

Among the Sacs and Foxes the placenta is wrapped in the blanket on which delivery took place, and secured to a tree to keep it from wild animals. Should a wolf or coyote get it and eat it the child would resemble such an animal, and eventually be devoured by it. It must not be thrown into the river lest the child resemble a fish, or be drowned and eaten by fish.

The accidents of parturition are very few, occurring perhaps as frequently as in the lower animals. The agency physicians have reported cases of faulty presentation, retention of the placenta, and rupture and procidentia of the uterus. The Indians are just beginning to appreciate the value of skilled assistance for such emergencies. Puerperal diseases were said to be unknown among Indians.

Malignant disease is of rare occurrence, especially among the full-bloods. Cancer of the breast was reported, but not of the uterus. Of course it is possible that the latter might exist, and its existence never be known by any but the patients, owing to their extreme reticence concerning disease of the genital organs. For the same reason it is impossible to say to what extent pelvic disease in general exists among Indian women. Cases were reported in which there were deformity of the uterus, ovarian pain, abdominal dropsy, leucorrhœa and gonorrhœa, so that it cannot be said that pelvic disease is unknown among them. It is probable that they are less susceptible as well as less sensitive to such diseases than civilized women. Those who are becoming civilized, or are already civilized, suffer from pelvic disease to about the same

extent as the whites. Venereal disease was said to be very prevalent, and doubtless it has much to do with the feebleness of the children and the high rate of mortality among the infants.

CONCLUSIONS.

I. *Puberty.* The mere fact of living in a savage state has not much to do with the early or late appearance of puberty. The Apaches and Mojaves of the hot and desert regions of Arizona mature young, but so do the females of southern Europe and the tropics generally. The law is general that both animals and plants should mature early under a tropical sun. The females in the northern tribes, the Cheyennes, Arapahoes, Crows, Assiniboinés and Sioux, develop more slowly, as is the case with women in northern Europe.

II. *Phenomena of Menstruation.* Savage life, with its vicissitudes and hardships, does not usually interfere with the regular recurrence of the monthly flow. Influences which would disturb or check it, and possibly produce permanent injury to a woman in civilized life, seem to have no such effect upon Indian women. Excessive menstruation is practically unknown. On the other hand there are occasional instances of dysmenorrhœa or amenorrhœa in connection with disease or deformity of the pelvic organs, so that savage life does not necessarily furnish immunity from such experience.

III. *Menopause.* Indian women are exceptionally free from the nervous and vascular disturbances which so commonly accompany the menopause in civilized women. The duration of the menopause varies as greatly as it does in civilized life. It usually comes between the fortieth and fiftieth years, but not infrequently is delayed far beyond the fiftieth year. Many gestations occurring in rapid succession, continuous hard work and the exposure and physical suffering incidental to savage life do not tend to shorten the menstrual and child-bearing periods.

IV. *Marriage and Sexual Appetite.* The social condition of Indian women is an anomalous one for this age and country. They must bear the burdens, do the drudgery, bring forth and rear the children, and then, perhaps, be cast aside at the merest whim of their husbands. Marriage among American

Indians means, as a rule, communism, polygamy, unrestrained lust, according to circumstances, all of which must be abandoned as they emerge into civilization, for they are incompatibles. Sexual appetite in Indians is the uncontrolled and uncontrollable desire of the wild beast, or it is an indifference in women of the degraded and debilitated tribes, except as it is associated with the idea of gain.

V. *Conception and Gestation.* The habits and manner of life in the more vigorous and well-developed Indian women are favorable to fruitfulness in child-bearing; but the facts that so many children die in infancy and that the restraints of civilized life are fatal to so many more, show that the race is not a hardy one. The unhygienic condition of the homes in many tribes, with their filth and degradation, and the frightful abuses of the abortionists in others, are further tending to weaken the race and impair its future.

VI. *Parturition.* The ease with which parturition is accomplished among Indians is an interesting fact. It must not be overlooked that the squatting or kneeling posture which they assume during labor is more favorable to muscular effort than the positions with which we are familiar in the lying-in chamber. This is a suggestive fact; so also is the apparently total absence of puerperal diseases among Indians. This is the result of pure air and plenty of exercise, and not of antiseptics or even ordinary hygiene. The quick recovery and return to their usual duties of Indian parturients also suggest the possibility that we sometimes make invalids of our obstetric patients unnecessarily. Accidents occasionally occur among Indian parturients, just as they do among animals, nature's work being sometimes far from perfect. This means death to the mother or child, or both, unless an intelligence beyond that of the savage can be summoned to avert it.

VII. *Pelvic Disease.* That pelvic disease has not been treated among Indians does not prove that it does not exist. Those diseases which result from infection, deformity, mal-development and faults of circulation probably exist, but they will go untreated and more or less unheeded until the suffering caused by them becomes keener and confidence in educated physicians stronger. The malignant diseases of the repro-

ductive organs are almost unknown among Indians. This shows that neither privation, nor hard work, nor exposure, nor giving birth to many children, necessarily results in the neoplasms which so afflict civilized women.

VIII. *Venereal Disease.* Both local and constitutional forms of venereal disease abound among Indian women. The frequency of syphilis, coupled with the great mortality among infants, and the great prevalence of glandular and pulmonary disease among many of those who survive infancy, are evidences of the inroads which venereal disease has made upon Indian vitality.

Finally, Indian women in the savage state undergo less physical suffering in connection with the reproductive apparatus than do civilized women. They menstruate, bear children and pass the menopause with the minimum of discomfort, as a rule. This is due to three causes: (1) natural or racial insensitiveness compared with the far more sensitive Caucasian; (2) abundance of exercise; (3) life in the open air. Civilized life, with its complex conditions, will always present obstacles to the performance of the functions peculiar to women with the same ease with which they are experienced by savages, and when Indian women exchange the savage for the civilized state, they must necessarily adopt also some of the ills which are inseparable from the latter.

LAKE SUTTER, FLA., May 25, 1891.

MESSRS. REED & CARNRICK, NEW YORK: *Gentlemen*—I have prescribed your food for years, and I thought perfection had been reached, but your Lacto-Preparata has surely crowned your efforts with complete success. It cannot be improved. I have been prescribing your preparations for years, and shall continue to do so as long as you keep up to the present standard. I have not been solicited to write this by any one, but when I find such preparations as Reed & Carnrick's, I feel it my duty to assist them in placing them before our brother doctors.

J. E. ANDERSON, M.D.

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

CONJUGATE DEVIATION OF THE EYES.

Dr. Gee has put on record the case of a child in whom this symptom was a prominent one. The patient, aged six, had suffered from measles a year before admission. She had never been well since, and about four months after the illness she lost her appetite, became apathetic, vomited everything she took, complained of pain in the head, staggered when walking, and often fell down. She slept with her head drawn back. Nine months after the attack of measles she had three fits at intervals of a few days. In those attacks she struggled very much, foamed at the mouth, and became quite stiff. A squint came on immediately afterward, the eyes looking inward. After a few days they began to turn gradually upward, and she seemed to lose her sight. About the same time she lost the use of her limbs, and her mind failed. On admission she was dull and apathetic, taking no notice of things around her, but occasionally ejaculating "Don't," when touched. There was retraction of the head during sleep, and also while she was awake. Both eyes were turned upward. The right eye was also turned a little outward. There was constant vertical nystagmus, and the pupils were dilated equally. There was no ptosis, and the ophthalmoscope showed secondary neuritis. The scalp-veins were full, and became more engorged before death. Any palsy was certainly incomplete, as the fingers of both hands could be put into the mouth. There was no rigidity of the arms or legs; the knee-jerks were not obtained, and the sphincters were natural. Vomiting was frequent, the abdomen was retracted, the pulse regular, and the urine natural. She died six weeks after admission. The author remarks that, according to Nothnagel, "in a given case in which the signs point to the existence of a cerebral tumor, there are grounds for localizing it in the corpora quadrigemina, or in the region of the corpora quadrigemina, if

the following symptoms be present: (a) an unsteady, reeling gait, especially if this appears as the first symptom; (b) associated with this gait, ophthalmoplegia existing in both eyes, but not quite symmetrically, or implicating the muscles in equal degree." It is evident that this case fulfilled the conditions. At the necropsy a soft, pulpy, gelatinous mass, of a yellow-pink color, was found to extend over the surface of the cerebellum above and behind the medulla, and some lobular offshoots of similar appearance involved the cortex of the cerebellum at the sides of the medulla and pons. Between the crura cerebri a large bleb-like sac, as large as a pigeon's egg and distended with fluid, bulged out, and this was tightly constricted in front by the optic commissure. The corpora quadrigemina were seen to be flattened and distended over a mass of gelatinous pink growth, which formed the anterior projecting extremity of a mass of similar growth filling the whole of the cerebellum, the cortical layers of which acted as a cyst wall and floated over the growth as if it were fluid. The floor of the fourth ventricle was also involved in the growth, and there was an isolated nodule in the anterior part of each lateral ventricle over the corpus striatum, that on the left side being the larger. Although the growth was too extensive to afford much information in regard to exact localization, the case is a very instructive one with reference to the statement of Nothnagel which Dr. Gee has quoted.—*London Lancet*.

MENIERES VERTIGO.*

A man fifty years of age, coachman, presented himself at the consultation, complaining of vertigo, with which he had been afflicted the last four years. About a year ago, in one of these attacks, he fell prone and was wounded on the head. The attacks, which have since frequently recurred, are preceded by a humming or hissing of the ears, and are sometimes followed by vomiting. There is no complete loss of consciousness. These symptoms together constitute the ordinary type of menieres vertigo. The ear is the point of departure of these accidents, and it can be said that all the affections

* Clinic of Prof. Charcot, *Cin. Med. News*.

of this organ may be reflected upon the labyrinth and act through this mechanism; thus the lesion is but of secondary importance, except in the case of a plug or wax, where, by a removal of this, we can almost instantly cure the disease. But even where the lesion is but slightly accessible, therapeutics enable us to act with certainty upon the vertigo. An interesting point in the history of this man is this, that he has been in several hospitals and his malady has remained unrecognized; even leeches were applied, a practice exceedingly injurious in this disease, for all loss of blood, all anemia, usually exasperate the accidents.

M. Charcot has long since formulated the plan of treatment to be pursued in these cases. It consists in the administration, twice daily, at meal-time, of 40 centigrammes (=about viss grains) of quinia sulphate—80 centigrammes (=about xiii grains per day); this is continued for fifteen days. The medicine is then discontinued for eight days, and is then resumed in the above described manner. Usually, after four or five such periods of administration with their intervals of discontinuance, a cure is generally obtained. Under the influence of this medication there is, sometimes, at the outset of the treatment, an exasperation of the noises in the ears and of the vertigo; but improvement manifests itself very soon.

It is to be noted that the form in which the vertigo presented itself in the present case is very easily modified; but it is not so in certain other forms, which may be said to be composed of two elements: an acute element, constituted by the attacks separated by longer or shorter intervals from each other, and a chronic state, characterized by less marked vertigo, but which is incessant and compels the patient to remain in his room, and sometimes even to avoid every species of movement. In these cases the sulphate of quinine does not succeed so quickly, and sometimes it requires seven or eight months to obtain a beneficial effect.

The vertigo of meniere is relatively frequent and sufficiently easy of diagnosis; nevertheless, the greater number of patients whom Charcot had seen had been the objects of errors of diagnosis, and often treated by the most various and inopportune means. The attention of every physician should be directed to the points set forth.—*Un. Med. d. Can.*

Myopia in Schools.

M. Nimier has examined this year a hundred and fifty-three young men, candidates for the military schools, of whom he found one hundred and thirty-one to be myopic. From the examination of these myopic pupils he concludes that the defective hygienic conditions often marked as causes of myopia in educational institutions still exist, and among these multiple conditions he emphatically remarks the habitual wrong correction of errors of refraction. The greater number of pupils whom he examined wore glasses chosen by themselves. One extreme case he instances as found among them, that of a young man with hypermetropia who had been constantly wearing a concave lens of six dioptries. Glasses chosen for distant vision serve for near vision by necessity when the students follow demonstrations in class and take notes, hence a spasm of accommodation and a subjective myopia of a degree more important than the real. The most dangerous period is that of severe application and study.—*N. Y. Med. Journal.*

Rat-Tail Sutures.

In the *Medical News* for December 5th, Dr. E. Oliver Belt of Washington states that he has made extensive use in ophthalmic operations of a fine fiber derived from the rat's tail. The tail is skinned and soaked in water for several days, when, on slight manipulation, it splits into perhaps a hundred fibers, each about eight inches long. They are placed in alcohol, and about once a month, for two or three days at a time, they are soaked in a 1-to-5000 solution of corrosive sublimate. Dr. Belt recommends these fibers in cases where a strong and fine animal suture is required. He says they are much finer than those prepared from the opossum's tail, which he had seen used by Dr. Chisolm, of Baltimore.

WE call the attention of our readers to the advertisement of Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This firm was established forty-five years ago, and enjoys a widespread reputation as a sound, honest, reliable business house. We do not hesitate to endorse their preparations as being all they claim for them.

The Memphis Journal of the Medical Sciences.

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JAS. L. MINOR, M.D., Editor.

WM. KRAUSS, M.D., Business Manager.

Memphis, Tenn.

EARLY TREATMENT OF SYPHILIS.—A very prevalent custom among physicians is to place patients on constitutional treatment as soon as venereal sores are discovered, thereby masking the disease, delaying the diagnosis, postponing intelligent treatment, veiling the prognosis, and clouding the title to disease in after life. No disease is more protean in character than syphilis, none whose manifestations may occur so unexpectedly during any period of life, none more subtle, than it at times in its behavior, and its influence may assert itself over almost any disease to which man is subject. With rare exceptions it is due every patient with venereal disease to know its nature—to know if it be local or constitutional; and, if it be syphilis, to have its character explained. In obscure disease, where absence or pre-existence of syphilis is the decisive question, how often is the physician baffled by the statement that a venereal sore in earlier life was cauterized and treated constitutionally to prevent the possible development of syphilis! No patient with a venereal sore should receive constitutional treatment until its syphilitic character has been clearly demonstrated. It takes but a few weeks for syphilis to declare itself, and this period of waiting, during which lack of treatment entails absolutely no danger or harm, can be very readily tided over, if the importance of doing so be explained to the patient; or, should importunity for treatment require that something be done, a *placebo* may be given.

PHAGOCYTOSIS is the term employed by Metchnikoff for the *battle-royal* which takes place when the animal economy is invaded by germs of disease which it can resist. Certain cells, called phagocytes—which we believe to be leucocytes—are attracted to all foreign substances introduced into the tissues, and possess the power of taking into their own substance, other cells and certain microbes and digesting them. These phagocytes are important agents in producing immunity from disease; for inoculated microbes are devoured by these cells in resistant animals, whereas they are not interfered with in non-resistant ones. Victory of phagocytes means health of individual—their defeat, success of disease. Microbial products exert chemical action on leucocytes—the more powerful the virus the more poisonous the product—being sufficient at times to paralyze and render inert the cells which flock toward the bacteria, leaving the latter free to develop and influence disease. In some diseases, as chicken cholera, the product is so powerful as to repel leucocytes, and thus prevent phagocytosis altogether; but if animals rendered resistant by injections of attenuated virus or certain doses of bacterial products alone, be afterward inoculated with the virulent microbes of the disease, phagocytes flock to the seat of inoculation, and through acclimation, possess the power of inclosing and digesting the microbes. This immunity may be natural or acquired.

PHYSICIANS SHOULD DISPENSE THEIR OWN MEDICINES.—The *Medical News* for November 28th, in support of this practice, presents the following propositions:

1. Chemical and pharmaceutical science and art have reached such perfection that it is now possible and even convenient to do so.
2. It saves the patient money and trouble.
3. The ordinary character finds it hard to pay for simple advice.
4. In emergency cases and in severe forms of acute disease time is saved and the disease more effectually withstood by the immediate administration of the needed remedy.
5. The accidents of prescription-writing and of prescrip-

tion-filling are lessened, while at the same time (with proper care and watchfulness over laboratory preparations) the efficacy and physiological effects of drugs are assured.

6. It will lessen the evils of hospital abuse, drug-store doctoring, the system of druggists' commissions to physicians, and of counter-prescribing.

TREATMENT OF GOITER.—Dr. Hunter McGuire recommends the cataphoretic treatment by iodine, and thus applies it: A cup-shaped electrode, containing in its cavity a bit of absorbent cotton saturated with iodine, is applied over the enlarged gland and connected with the positive pole of a galvanic battery; the negative electrode is applied to the back of the neck, and a current of 6 or 8 milliamperemeters is allowed to run for ten minutes. This is repeated daily for three weeks, and often causes the goiter to disappear.

To DR. WM. KRAUSS we are indebted for the excellent report of the recent meeting of the Tri-State Medical Association—publication of which was begun in the last, and continued in this issue of the JOURNAL.

THE PHYSICIAN'S VISITING LIST for 1892. (Lindsey & Blakiston).

The popularity of this Visiting List is shown by the fact that this is the 41st year of its issuance. It contains a deal of information, and for completeness, compactness, and convenience, it is excelled by none that we have seen. Published by Blakiston, Son & Co., Philadelphia.

THE forthcoming January (1892) number of *The Alienist and Neurologist* will contain: Neurasthenic Rudimental Impulsive Paranoia, by Prof. Enrico Morselli, Italy; The Work of Medicine for the Weal of the World, by C. H. Hughes, M.D., St. Louis; Some Cases of Hemiplegia, by John Ferguson, M.D., Toronto, Canada; Relations of Chorea and Epilepsy, by G. R. Trowbridge, M.D., Danville, Pa.; The Virile and Other Reflexes, by C. H. Hughes, M.D., St. Louis; Diagnosis and Nature of Certain Functional and Organic Nervous Diseases, by J. T. Eskridge, M.D., Denver; Traumatic Neurosis in Dam-

age Suits, by H. T. Pershing, M.D., Denver; Present Aspect of Cerebral Surgery, by L. C. Gray, M.D., New York City; Visual Imagery of Alcoholic Delirium, by C. G. Chaddock, M.D., Traverse City, Mich.; Insanity and Genius, by Jas. G. Kiernan, M.D., Chicago. Besides the usual selections, editorials, hospital notes, reviews, etc. C. H. Hughes, M.D., Editor, 500 N. Jefferson avenue, St. Louis. Subscription, \$5.00 per annum; single copies, \$1.50.

Dr. J. B. S. Holmes has associated with him at his Sanitarium, Dr. W. E. B. Davis, recently of Birmingham, Ala. Dr. Davis is President of the Tri-State Medical Society of Alabama, Georgia, and Tennessee; Secretary of the Southern Surgical and Gynecological Society; Vice-President of the American Medical Association; member of the Birmingham Board of Medical Examiners; Surgeon to the Birmingham Hospital of United Charities, and is one of the brightest, most prominent, and most promising surgeons in the South. He has already made considerable fame for himself in gynecological and abdominal surgery.

* * *

Our friend, Mr. F. W. Sultan of the Sultan Drug Co., has launched out a new preparation: Febrina Tablets. Mr. Sultan is a thorough pharmacist and chemist, and the success of Febrina Tablets is assured. See advertisement.

* * *

Fellows Syrup of Hypophosphites is the appropriate restorative in convalescence from la grippe. As a constructive it has no equal.

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Sal Aseptic is the ideal antiseptic; pure, clean, elegant, efficient, readily soluble.

* * *

H. W. Loeb, A.M., M.D., Resident Physician of Ensworth Hospital, writes to Enno Sander, Ph. D., St. Louis, Mo.: It affords me much pleasure to report the gratifying results obtained from the use of your prepared waters in this institution. I would particularly mention the pleasing effects of your Garrod Spa or Lithia Potash Water, in the treatment of arthritis and several cases of rheumatism.

Memphis Journal of the Medical Sciences

MEMPHIS, TENN., FEBRUARY, 1892.

DEPARTMENT OF PRACTICE OF MEDICINE & THERAPEUTICS

CONDUCTED BY

B. G. HENNING, M. D., AND S. A. ROGERS, M. D.

LYSEMIA, OR MALARIAL HEMATURIA.

E. H. MARTIN, M.D., GREEN GROVE, MISS.*

An article under this heading in the September number of the *Journal* by Dr. Bruce McVey, and another in the October number by Dr. Geo. W. Douglas, have interested me much; and I am influenced to add my feeble light on this dark subject by the belief that I really have a light to add, that it is apparently much needed, and because I firmly believe that hundreds of patients with this disease are annually hurried to the grave by their physicians. This broad statement will come with better grace when I explain that I have in times past done my own share of the hurrying; indeed, in those days I never let a case of "hematuria" live more than three or four days, and have wound them up in much less time; and after that came a distrust of the teachings of the textbooks and the profession at large upon this subject and a wild grasping at any sort of treatment that would give the patient half a chance.

And then I read an article in another journal by Dr. R. S. Williams, of Mount Meigs, Ala., in which he advocated an infallible cure—a plan of treatment so simple and so directly at variance with orthodox teaching on the subject, that it required the courage born of desperation to apply it and trust it in the first case.

* New Orleans Medical and Surgical Journal.

I found this treatment as infallible as Dr. Williams had promised; and now, after a series of cases brought speedily from conditions of hopelessness, at times with suppression of urine and grave uremic symptoms, to rapid and complete convalescence, it is as rare for me to feel any anxiety concerning even the most severe cases as it was for me to formerly have hope.

Some of my professional neighbors have tried Dr. Williams' treatment, and no one who has tried it has been disappointed.

And now that I have struck the right path, I often wonder why every one does not see it all at a glance, and I am amazed that I myself should have so long gone wrong. So much depends upon the point of view.

However, I find it very difficult to get some physicians to change their treatment, even when they admit a mortality of from 50 to 80 per cent.; a few because they would rather be orthodox than right; more, because the treatment is so simple that they are afraid to trust it when in the presence of the frightful disease. And, lest some who read this may be deterred from giving it a trial for the latter reason, as Naaman of old refused to merely dip seven times in the river Jordan, for which we can scarcely blame him; lest the treatment appear too simple to be useful, I will give what is in my humble opinion the *modus operandi* of the cure.

Malarial hematuria, as we call it, occurs only in persons who are suffering from chronic malarial toxemia. They may or may not have had frequent attacks of malarial disease, but they have always been exposed to the action of the poison for some length of time. The blood of such a patient has become deteriorated, and a tendency to dissolution and disintegration of the red corpuscles exists.

Second, the long continued state of malnutrition has so weakened the walls of the capillaries that they are easily ruptured outright, the slightest trauma producing a bruise, or else allowing a transudation of serum, as is shown by the edema and anasarca often seen in such patients. Now add, as a third factor, a local increase of blood pressure in any part or organ, and we have an outpouring of blood coloring matter and broken down corpuscles through the ruptured capillaries.

The hemoglobin set free rapidly stains the sclera and skin an intense yellow, a jaundice generally without bile. The toxic agents set free by this process or retained by the disordered secretions, soon cause an uncontrollable vomiting and incessant nausea, at times delirium, always a relatively slow pulse until just before the end, a generally slight rise of temperature after the sweating stage of the final malarial attack; finally, after the kidneys are choked up by disintegrated corpuscles, suppression of urine takes place, and, if not speedily relieved, is followed by coma and death. All this may occur in less than twenty-four hours from the beginning of the attack, or it may take days.

Now it is evident that the first two essential conditions, those of the blood and capillaries, arise from malarial toxemia; the third factor, the localized increase of blood pressure, is generally from the congestion of the internal organs incident to a chill, and, I believe, almost always directed to the kidneys by the increased work these organs are performing in eliminating the quinia which has been given to abort that same chill.

I have never seen a case in which the patient had not been more or less cinchonized at the time of the attack; and judging from the bad effect that this drug has when administered after the disease is established, it is but natural to suppose that in most cases it is more or less an exciting cause of the disease. Not always; for Dr. McVey asserts that he has seen cases who had not taken quinine for a year previous, and we are bound to believe that he is correct, or at least that he had been so informed by the patients. And there may be much of coincidence in the results of my observation, for I am afraid that there is not a white person in this county who has not taken quinine within the past three months.

But, leaving out the quinine factor, the three essentials before mentioned are sufficient to explain the occurrence of the disease; and without the theory of a special hematuric germ as advanced by Dr. McVey. We speak of "malarial hematuria" as a disease, but, as I have tried to show, it is not a disease *per se*, but a morbid condition resulting from a specific disease; a condition for which I have suggested the name

"Lysemia," in a recent article published in another journal,* in lieu of the clumsy nomenclature now in vogue.

And as this morbid condition is far more serious than the causative disease, it becomes evident that the treatment should be directed first to the correction of the condition, for from the disease malaria there is but little more to fear.

The aims of treatment in the order of their importance are;

1. To clear up the urine.
2. To evacuate the bowels and keep them acting that they may aid in freeing the system from the toxic agents set free by the explosion, and better the state of the system for absorption of remedies and nourishment.
3. To repair the damage done to blood and blood vessels.
4. To administer any anti-malarial remedy which will not interfere with carrying out the other indications.

I place the clearing of the urine first in order of importance, because death almost always results from suppression of urine, and the suppression is due to the hemorrhage into the stroma of the kidney. The Malpighian tufts and uriniferous tubules must be kept free from clots, with lumen clear; and if this is done, the patient is not in imminent danger even if malarial paroxysms occur, which fortunately is not often the case.

The propriety and place in order of importance of the second and third indications will be admitted by all; and the fourth indication I place last for the reasons just mentioned, because the actual history of these cases gives few examples of recurrences of the malarial attack.

Just why this is the case I do not know, but the fact stands on record in nine cases out of ten. And if, with Dr. McVey, I may be permitted to indulge in a little private theorizing, I will say that there may be certain chemical compounds formed or freed by the dissolution of the blood which are deleterious to the malarial germ, just as in alcoholic fermentation, the process is retarded and stopped by the formation of the alcohol. This, of course, is only a speculative suggestion, but the fact remains that a patient with what we call "malarial hematuria" has *malaria* to fear the least of all the evils of his condition.

* Atlanta Medical and Surgical Journal, Feb., 1891.

And now as to the means of fulfilling these four indications.

1. The one remedy *par excellence* for clearing the urine is turpentine. I usually give to an adult ten drops, or a No. 1 capsule full every four hours, and have never failed to clear up the urine in from twelve to forty-eight hours. Improvement generally begins as soon as the odor of violets is noticeable.

The turpentine, in my opinion, acts not directly as a hemostatic, but as a reparative to the capillaries and as a diuretic.

I object to ergot or gallic acid for the reasons that, first they can have but very little if any effect; second, if they have, it is bound to be a bad effect, as they have no diuretic action. The ergot might increase the pressure in the capillaries, and the gallic acid give a tendency to clot formation, both of which we wish to avoid. As for digitalis, I do not think it is ever needed; the circulation is always oppressed and relatively slow, in some cases as low as sixty pulsations per minute — this from uremia; and if the digitalis has any effect toward contracting the capillaries, that would certainly increase the blood pressure in them and enhance the danger; and digitalis cannot have its usual diuretic action, for the kidneys are already engorged with blood.

Turpentine alone, given persistently as I have mentioned, will do all that one can wish toward carrying out the first indication.

2. The second indication may be accomplished by means of any purgative at hand. Calomel has no specific action; I give it in moderate doses in the beginning of the attack where vomiting is most severe, but prefer Epsom salts, and as routine treatment prescribe a tablespoonful of the latter every four hours until six or more actions have been produced and then *pro re nata*.

3. The third indication is met with nourishment and iron, preferably in the form of the tincture of the chloride. In a vitiated state of the stomach I do not believe that any other preparation of iron compares in utility with the old-fashioned tincture. I generally give a little nourishment, followed by four to six drops of the tincture, well diluted, every four hours.

Suitable nourishment is generally difficult to obtain, for these cases occur mostly in the country away from markets

and prepared foods. The most useful article in the largest number of cases in my hands has been buttermilk; it is always at hand in the country and generally more relished by the patient than anything else obtainable.

If a point is made with the patient and nurses that the iron is very necessary but will do harm if given on an empty stomach, there will be no trouble about the patient being nourished.

4. The fourth or anti-malarial indication I prefer to meet with arsenic — because it does no harm, because in the form of Fowler's solution, it is palatable and readily retained; and further, because there is no hurry and we can well afford to await its slow but certain effect. Why not use quinine instead? I do not give it because quinine has killed every hematuric patient I ever treated with it. I have known many patients to recover from this trouble who had been treated with quinine, but the weeks of illness, the many relapses and the months of convalescence show too clearly that the recovery took place, not as a result of treatment, but in spite of it. The quinine must be eliminated, the kidneys have to do the work, and they are not in condition to stand the additional strain. The urine becomes more scanty, more viscid and more tarry; suppression and death rapidly supervene. If the patient has the constitution to withstand the diseased condition and the quinine, too, he recovers, though very slowly.

Now for the sake of comparison, which is often as useful as odious, let us glance at a typical case of the severest kind treated by the usual method and a similar case treated by what I choose to call the rational method.

You are called to see a patient, probably a young man of thirty; he gives a history of chills and possibly has been taking much quinine. Before sending for you he has had a severe chill and is suffering much from nausea and vomiting, temperature 103 deg., pulse 90. You observe a slight degree of jaundice and the pot contains half pint or so of bloody or blackish urine. You prescribe calomel, also quinine and other drugs to meet the symptoms, and leave. You return in the evening and find your patient very yellow, with uncontrollable vomiting, bowels may or may not have acted, urine is scanty

and very thick, the color of coffee grounds, temperature 101 deg., pulse 75. Treatment continued; the dose of the quinine is doubled. The next morning you find the symptoms intensified, the urine is suppressed, temperature 99 deg., pulse 65. Night comes and with it delirium, temperature 99 deg., pulse 70. Coma supervenes. You wait and watch. Before daylight you notice that your patient's pulse is 90; an hour later it is 120; in another hour it is 160; the respirations are more and more slow and labored; soon the pulse is so fast and feeble that it seems a mere flutter and you cannot count it. The patient gasps for breath now but once or twice a minute; now he gives a last gasp; the heart still flutters for a minute or more, and then all is still. Your work is done.

This is not exactly an imaginary case; I have had the unpleasant experience several times.

And now for a similar case treated without quinine. We will suppose it even worse, and say that you are not called in until suppression has taken place and delirium ensued. You find a man more deeply yellow than a lemon, tossing in the bed or gazing into vacancy while plucking the cover. He rouses only to vomit and call for more water. You are shown the last urine that has passed; it looks like tar inspected through a red glass. His bowels are not acting; temperature 99, pulse 70. Your first instruction is *that no more quinine be given*. Next you prepare your remedies in suitable form for administration. Then you write out a schedule something like this:

1 P.M.—Turpentine.

2 P.M.—Nourishment; iron and arsenic.

3 P.M.—Epsom salts (or other purgative).

4 P.M.—Arsenic alone (2 drops).

And so on for each succeeding four hours of the twenty-four, then the schedule to be repeated.

If the vomiting is exceptionally troublesome, you omit the nourishment, arsenic and iron for the first twenty-four hours.

You write across the list in large letters, and add verbal emphasis, that any dose if vomited is to be repeated at once. You give instructions that the nausea and vomiting are to be controlled by wetting the face and neck and rapid fanning

after each dose, and oftener if needed. You will have to explain to the friends that only one drug at your command will, in the least degree, control the vomiting, and that is morphia hypodermically, and that you do not wish to give morphia as it will have a bad effect on the secretions.

You return the next day to find but little change. The nausea is probably less, since the bowels have acted several times; there has been a little urine passed about as bad to behold as before, otherwise no change; temperature 99 deg., pulse 70. You return on the next day to find your patient resting better, and rational; bowels open and salts discontinued; urine free and fluid but still bloody; temperature 99 deg., pulse 80. The next day patient is better, but very weak; retains his nourishment and medicine; urine a transparent red; temperature 99 deg., pulse 90.

On the following day the urine is clear and the turpentine is discontinued; salts to be given as needed; complexion is becoming more clear; a little solid food is allowed, but not relished; temperature 99 deg., pulse 85. The treatment now is only the iron and arsenic given in increased doses, and only after food is taken. The appetite mends apace, and in another week the patient is out of bed. Convalescence is speedy; iron and arsenic continued a month.

This is also not an imaginary case. I have had to make use of supposititious cases because my cases have been or are to be reported elsewhere, but the above is typical of them all. Where you are called in sooner the recovery is correspondingly more rapid.

And now why was this disease not observed before the 50's? I believe that it did occur in those days; we hear of unaccountable cases of "yaller janders" following chills many years before that time, and quite recently I have known a physician to diagnosticate a case of this kind as "yellow jaundice;" another called a case yellow fever and created a sensation; every day there are being discovered new diseases which existed always, though unobserved or undifferentiated. Kidney disease must have been a very ancient complaint before the time of Bright. But "hematuria" was certainly not so frequent forty years ago as now. First, there were not so

many people, and these were hardy pioneers; second, there was not so much quinine used. For, while cases may occur without quinia, I firmly believe it precipitates the explosion in a large majority of instances. I know of subjects in whom I can produce a typical case at any time (after one or two chills) by giving twenty grains of quinine.

As to its not occurring in and around New Orleans where quinine is much used—it *does* occur there, as the records of Charity Hospital will show. That it should be less frequent in a city is to be expected, as suitable subjects are rarer. A person of means calls in his physician, and the poorer classes can go to the dispensaries after the first chill. It is more often the planter, the levee builder or the civil engineer, far from a physician, who try to doctor themselves and become fit subjects for this condition. The fact that quinine is much used in New Orleans goes to show that the people have treatment early and are not allowed to run on until ready for "lysemia."

Why are most of these cases of the male sex? Because the women are less exposed and better cared for, hence are less liable to become fit subjects. And why is the negro race partially exempt? Because nature gives them more power against malaria; but there have been five cases of "hematuria" in negroes in this neighborhood in the past two years, so nature does not exempt that race entirely.

I must beg to differ from the two gentlemen who have lately written on this subject on one more point. That is as to the reported irregularity of the symptoms in different cases and different localities. True, each patient marks his own case with his own individuality and personal idiosyncrasies; and some have symptoms that others have not. One may have black sputum just because he happens to have a chronic passive hyperemia of the lungs, due, maybe, to semilunar obstruction or other cause, and other patients will not have this symptom; just as one patient may have blackish effusion in a blister which others have not because they are not blistered.

But above all of these personal symptoms for which the disease and condition is not wholly responsible, there stand pre-eminent the three cardinal symptoms which, taken with the history, are pathognomonic:

1. Hemoglobinuria.
2. Nausea and vomiting.
3. Intense jaundice.

And a comparison of the apparently very different cases of Drs. McVey and Douglas will show these cardinal signs in each.

But while personal idiosyncrasy may impress each case, I cannot believe that a change in locality could influence the natural history of the disease except as to frequency and possibly severity.

And now a word as to the nomenclature of this condition. The word hematuria is incorrect, for pure blood is not found in the urine. Hemoglobinuria is better, but is merely naming a symptom, not describing the pathological state. So with yellow chills, swamp yellow fever, black chills, etc.

Hemorrhagic malarial fever is a glaring misnomer. To begin with, there is generally but little fever, and this is nearly always septic rather than malarial; and true hemorrhage does not occur in this or any malarial fever unless from secondary causes. Finding all of the names in use open to objection, I have suggested the name *lysemia* (to loose, set free, and blood) as more nearly descriptive of the pathological condition, better expressing the fact that there has been a dissolution of the blood and a loosing of the integral parts of it as a cause of the objective symptoms. But I will not press the matter: it makes little difference what we call it; a disease by another name will kill as quickly.

Of my brethren of the profession I wish to make an earnest request. I am attempting to secure reports of a sufficient number of cases treated by different plans to warrant the drawing and comparing of percentages of successes by each treatment. It will take several hundred cases to arrive at anything like correct statistical conclusions. And I will greatly appreciate the kindness if you will send me reports of either *all* of your cases, or of *all occurring in a given period of time*. No selected case desired. If the results of this compilation are ever published, each physician will be credited with his own cases.

DEPARTMENT OF
GENERAL SURGERY.

CONDUCTED BY
W. B. ROGERS, M. D.

GENITO-URINARY SURGICAL CLINIC.
Tumors Within the Scrotum.

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I present you here, gentlemen, two cases of tumor within the scrotum, a subject on which an earnest endeavor was made to enlighten you at our last meeting. Briefly, in review of the subject before examining the cases, I will enumerate here upon the board the various enlargements occurring in connection with the cord and testis, and recall to your mind the several pathological conditions upon which these enlargements or tumors depend. A tumor within the scrotum may lie wholly upon the cord, or be confined to the gland (testis and epididymis), or again both gland and cord may be masked within the tumor.

Tumors connected with or involving the cord alone, are:

Hydrocele of the cord—a collection of serum, located either in an unobliterated section of the prolongation of peritoneum, or in a new-formed sac in the connective tissue of the cord, appearing as one or several small tumors along the cord, painless to the touch.

Varicocele—a dilatation in caliber, with hypertrophy of walls of the veins of the cord,—a varicosed condition of the pampiniform plexus.

Tumors involving only the gland (testes and epididymis):

Hydrocele.

a—Of the tunica vaginalis—a collection of fluid in the serous sac surrounding the testes, which fluid is highly albuminous.

b—Encysted—a collection of fluid not contained in the tunica vaginalis, but in a new-formed sac connected with the gland; the fluid is only slightly if at all albuminous (it sometimes contains spermatozoa—then called a spermatocele).

- c—Congenital—a collection of peritoneal fluid (in the tunica vaginalis,) which descended through the still pervious tubular prolongation of peritoneum, and which passes back on elevating the parts.

Hematocele.

A collection of blood within the tunica vaginalis, a hemorrhage, due to rupture of vessel from traumatism.

Sarcocoele—a solid enlargement of the gland; there are five chief varieties.

- 1—Acute (if we may so dignify it)—acute inflammation of either epididymis or testis, or both, due to traumatism, or extension of inflammation, or metastasis—an inflammation which tends to recovery.
- 2—Simple—a deposit of fibrous tissue, due to subacute chronic inflammation.
- 3—Tubercular—due to deposit of tubercles.
- 4—Syphilitic—due to deposit of syphilitic matter.
- 5—Malignant.
 - a—Sarcoma—usually seen in early life.
 - b—Carcinoma—seen later in life.

Enlargements obscuring both cord and gland :

Hernia—scrotal. A mass consisting of either intestines or omentum, or both, and which has descended to the scrotum through the external abdominal ring.

It must be remembered that these lines of distinction that I have drawn relative to location of these enlargements refer to tumors of recent formation, and they do not hold good in many instances where the tumor has existed for years—as in hydrocele of the tunica vaginalis, which may obscure all parts below the ring; and again, a malignant sarcocoele may in short time involve the cord even up to within the inguinal canal. I would also remind you of the fact that we sometimes find several of the pathological conditions existing at the same time within one-half of the scrotum, thus complicating the points of diagnosis as well as the treatment.

Now, let's classify upon the board here these tumors as reducible and irreducible.

Those that are reducible—that may be made to disappear by position and taxis—are :

Hernia, Varicocele, Hydrocele (congenital).

Irreducible—cannot be made to disappear by position and taxis :

Hydrocele,	Hematocele,	Sarcocoele,	Hernia,
a—of the cord.			a—incarcerated.
b—of the tunica vaginalis.			b—strangulated.

Again, these may be here classified as

Cystic,	Solid,
Hydrocele.	Sarcocele.
Hematocele.	

And this next last classification reminds us that we have dignified hernia, varicocele and hematocele with the title of tumor. Neither possesses inherent property of growth, and neither is formed of cell elements with no physiological function. Yet it is customary in this study of diagnosis of enlargements within the scrotum, to call them all tumors. Aside from being a circumscribed mass, hematocele possesses no title to tumor.

Acute orchitis and epididymitis are distinct inflammatory conditions which tend to disappear instead of to persist and, increase; they have no valid title to the term tumor.

Case I. Henry Ch., 32 years of age, presents this pear-shaped tumor, about 5 inches long, in the left scrotum. Without review of his previous history, let's place him upon the table and learn what we can by examination of the tumor.

First, I elevate the tumor and it does not disappear: thus, varicocele and congenital hydrocele are eliminated from this list of tumors upon the board.

The growth includes the gland and nearly the entire length of the cord from below upward; but here, just below the ring, I feel the cord very distinctly; it is not accompanied by any hernial protrusion, and this fact at once eliminates the different herniæ.

And again, hernia being practically the only enlargement which extends from the cord to the testes, we are forced to conclude that this tumor began in connection with the gland, and grew upward. The question next for consideration is, is it a cystic or a solid tumor of the testis?

This enlargement on careful palpation gives very distinct fluctuation. As I press down with the fingers at this point I feel the resisting fluid at this; the sensation is unmistakable in this case, and I feel no hesitancy in saying there is a fluid here—not only is there fluid present, but the bulk if not the entire increase in size is due to this fluid.

Now, what is the nature of this fluid? is the next question. Is it blood or serum? is it hematocele or hydrocele? If the patient's skin were white, this would be a good case to test the translucency or non-translucency of the fluid. If the skin were white, I would place a lighted candle on the opposite side and close to the tumor, and then looking through this rolled paper, placed one end against this side of the tumor, thus the light would be apparent through the tumor, if it were hydrocele; if hematocele, all would be dark because of blood being opaque. But the skin of this patient being itself non-translucent, we have to test the nature of the fluid by use of hypodermic syringe used as an aspirator.

I grasp the tumor firmly from above with left hand to render skin tense and steady the mass; the hypodermic needle I now insert at a point on the anterior surface near the upper part of the tumor, because the testis usually lies below and posteriorly, and we wish to avoid wounding it. Now, the needle has entered the sac containing the fluid, and I draw back the piston and you see the syringe fills with a straw-colored serous fluid. This we have demonstrated to be a cystic tumor—a hydrocele. Thus you see in some instances a diagnosis can be reached without any previous history of the tumor. It may not be uninteresting to those of you who are new members at clinic to hear the direct examination of the case—that is, history of man and tumor. He has always had good health; is a laboring man; has never received any injury to the testis; says he discovered the tumor some years back when quite small, and before involving the cord; has never experienced any pain in it, and only applied for treatment because of its being in the way—an annoyance. It is pear-shaped, slow growth, painless, with no history of traumatism, and is cystic—typical hydrocele of the tunica vaginalis.

You are indebted to Dr. Krauss for presenting this case, and I will return the case to the doctor for treatment, after saying to you that I employ the following method of treatment: Inject from one to two syringes (hypodermic) full of pure carbolic acid directly into the sac containing the fluid. I do not draw off the hydrocele fluid because less inflamma-

tory reaction follows when the fluid is left than when drawn off. My patients rarely have to go to bed, or even stay in doors, while, if the sac be first emptied, and the carbolic acid thrown in, orchitis follows, and from 3 to 6 days of confinement are entailed upon the patient. In my cases there is perceptible softening of the tumor in two or three days, and it steadily diminishes in size, and in fourteen to eighteen days all appears normal. When the carbolic acid treatment fails, as occasionally it does, I lay the sac open and pack with gauze, it then heals from the bottom and the tunica vaginalis testis is obliterated.

Case II. Geo. H., 30 years of age, also presents a tumor within the left scrotum. Placing him on the table on his back, the tumor fails to disappear by gravity, and I find the testes and lower half of cord involved. I will not go into the differential diagnosis by exclusion, as in the other case, but by a direct path endeavor to discern the nature of the enlargement. It is oval-shaped, painless, of some eight months existence, with no recollection of any injury to the organ (never had any urethral injury or disease). The tumor measures some $3\frac{1}{2}$ inches in length by $1\frac{1}{2}$ in its greatest breadth. The superficial surface is smooth, and fluctuation is very distinct; the fluid does not fill the sac as tightly as in the other case. We clearly have to deal with a collection of fluid—in all probability a serous fluid. I find here posteriorly a hard mass, which as near as I can estimate, equals about one-third of the entire tumor. The sac is not tense from fluid, hence I map out an enlarged gland, hard and slightly irregular—a sarcocele, with fluid in the tunica vaginalis. I now introduce the hypodermic needle, carefully avoiding mass posteriorly, and now we have drawn a syringe-ful of serous fluid. There is a hydrocele, but this is quite a different affection from the case just examined. In Case 1 there exists no pathological condition beyond a loss of balance in the secreting function of the tunica vaginalis. Open that tumor, and to the naked eye there would be no pathological changes—a normal-size testis, epididymis, and the tunica vaginalis only stretched. Lay open this tumor and you find on escape of the fluid, a

sarcocele, a solid enlargement of the gland. This hydrocele then, in so far as it exists, is a symptomatic hydrocele, dependent on the sarcocele, and treatment directed to the hydrocele would be of no benefit, but all treatment must be directed with a view to relief of the sarcocele. This sarcocele has been growing about eight months, has attained to but small size, is painless; there is no glandular involvement; hence we pronounce against malignancy. It is a non-malignant sarcocele, clearly not an acute swelling, hence must be either a syphilitic, or simple, or tubercular sarcocele.

The patient admits having had a chancre five years ago; denies any secondary symptoms. I fail to find any evidence of syphilis either in his lymphatics or skin or mucous membrane of mouth or fauces. He is well nourished, and neither parent nor brother nor sister has had tuberculosis. There is no history of a previous acute orchitis, either traumatic or gonorrheal, hence you see the pathway to a diagnosis between syphilitic and tubercular sarcocele is not clear.

Examining the right gland, I find the epididymis infiltrated, hard and enlarged, but not painful. No effusion yet in the tunica vaginalis; cord not implicated; testes proper not yet invaded. Doubtless six months ago the left organ presented a picture similar to that shown in the right this evening, and we are justified in the assertion that without treatment the right will follow in the wake of the left.

That is the diagnosis in this case. Suppose we prognose a while—then diagnose. The most cheerful prognosis is a diagnosis of syphilitic sarcocele, but I confess that the case is one difficult of positive diagnosis, and shall put this man on syphilitic treatment. I shall administer potass. iodide and mercury in full doses to test the question. If syphilitic we must learn it soon—no delay. If non-syphilitic and tubercular, it is likewise important to learn its nature. We will present this case again in ten days, and see what we have learned.

DEPARTMENT OF
GYNECOLOGY.

CONDUCTED BY
T. J. CROFFORD, M. D.

PERITONITIS FROM A SURGICAL STANDPOINT.*

The treatment of peritonitis until recently has been clouded in superstition and ignorance. This would possibly have continued indefinitely, but for the scalpel of aggressive surgeons, who have learned pathology at the operating table, not in the dead house. The work of such men as Price and Tait has overthrown existing doubts and the fallacy of such treatment as that advocated by blind theorists. The opium, poultice, iodine and blister treatment of the fell disease seems about exploded. The results of the old treatment have furnished statistics (to say the least) frightful. The records of the autopsy chambers should be used as an argument for some other treatment, than that of the past. The mortality has been too great to allow of any hesitation or consideration of the weak, vacillating arguments of the theoretical.

Peritonitis is as assuredly a surgical disease as any the surgeon is called upon to treat. Every practitioner should, in emergency, be capable of meeting the immediate indications. Persistency of symptoms always means section, irrigation and drainage.

To classify the varieties of peritonitis as to form, no little difficulty is met with, for the disease often presents itself when the classical symptoms are not all apparent. The best classification as to cause that might be mentioned would be the following:

I. Traumatic peritonitis (developing after accidental trauma or surgical operations).

II. Peritonitis due to ulcerative perforation of abdominal or pelvic viscera (appendix, intestines, stomach, Fallopian tubes, gall-bladder, bladder).

* A. V. L. Brokaw in the January Fortnightly.

III. Peritonitis due to incarcerated hernia and intestinal obstruction.

IV. Peritonitis due to rupture of intra-abdominal abscesses or tumors (ovarian or other cystic tumors).

V. Puerperal peritonitis.

VI. Peritonitis from obscure and undetermined causes.

VII. Localized peritonitis.

VIII. Tubercular peritonitis.

It is not my intention to give the details of the special procedures indicated for each and every case, but only the great principles of treatment which should govern all cases of peritonitis. When well-defined symptoms of peritonitis exist, nothing short of radical procedures will give perfect results. Generally speaking, abdominal section is assuredly indicated in the majority of cases, and holds out the only reliable means of effecting a cure.

In certain cases of mild localized peritonitis of pelvic origin, saline or calomel purgation will, at times, relieve existing symptoms, and necessarily these remedies should precede section if the symptoms are not too threatening. The high percentage of deaths in cases of peritonitis treated by laparotomy must be attributed to late operations.

With the definite symptoms of pus, no matter where located, there is but one indication: evacuation and intelligent after-treatment. A few hours' hesitation and all may be lost. No matter how long the patient's condition, even if in a state bordering on collapse, well directed surgical efforts may succeed. It may be necessary to do an incomplete operation in certain cases to tide over an existing unfortunate state. Under an improved condition of the patient, the incomplete operation may be finished at a later date, with all the surgical nicety of an operation of election.

We hear on all sides, of certain surgeons refusing to operate when acute inflammatory symptoms are present. These same gentlemen select only favorable cases for operation and are derelict in their duty to their patients. They operate only for statistics, not for the good of the unfortunates. We owe it to humanity to do what the exigencies demand, even if we jeopardize our good statistics.

In peritonitis, as in other desperate diseases, the situation should be explained to the patient and the consent obtained to do the necessary operation. Whatever is done in cases of peritonitis should be done promptly, without hesitancy or lack of decision. If the medical treatment of peritonitis does not give prompt, quick results, it should be put aside and a rational measure adopted, that, is section. The pathologically ignorant and the conservative, so-called, always counsel against the early use of the knife. If a condition demands the use of the knife at all, it should be as early as possible. Nothing is gained by waiting.

I have had in the past few months the positive evidence of good results from early operative interference in cases of peritonitis, and call to mind cases in which patients, on the verge of dissolution, were saved by prompt surgery. The following brief synopsis of a few cases may be of interest, and illustrative of the measures advocated:

Case 1: Child, seven years of age, seen in consultation with Dr. A. C. Robinson. Child sent to St. John's Hospital in a low, critical condition; pulse weak, thready; temperature 104; perityphlitic abscess; all the signs of peritonitis. Immediate operation; gangrenous appendix; ruptured perityphlitic abscess into peritoneal cavity, pelvis filled with over a pint of pus; intestines, omenta, everything matted together by recently formed lymph. Peritonitis almost general. Abdomen was flushed out with several gallons of hot water, large and small abscesses, cavities broken up, all adhesions separated; drainage tube, gauze, packing, recovery.

Case 2: Mrs. Annie E., referred to me by attendant. I found upon examination, localized symptoms of peritonitis; made section, with irrigation, evacuation of over a gallon of pus. Pus cavity extending from floor of pelvis in front and behind the uterus upward to the liver. Pelvis and abdomen thoroughly packed with gauze. Rapid recovery.

Case 3: Mrs. W. Right and left pyosalpinx. Condition very critical; temperature 105.2° when placed upon the table. All symptoms of an acute peritonitis present. Immediate section: large abscess; rotten ovaries and tubes; peritonitis from a leaky tube; irrigation, drainage, recovery.

This patient induced an abortion upon herself some weeks previously by passing a hair-pin into the os and injecting cold water into the uterus with a Davidson's syringe.

Case 4: Miss D. Repeated attacks of peritonitis. Temperature 104.4° at time of operation. On section, found a ruptured pelvic abscess, large pus tubes; irrigation, drainage, gauze-packing, recovery.

Case 5: Mrs. I. Secondary laparotomy for peritonitis following a section done seven days before. Temperature 104. Abdomen reopened, adhesions broken up, free irrigation, drainage, recovery.

Cases 6 and 7: Peritonitis following accidental abortion.

Cases 8 and 9: Peritonitis following criminal abortion.

These cases might be added to, but are sufficient to illustrate the value of the treatment recommended. But one death occurred, and all were what might be truly considered desperate cases. The case which terminated fatally was one of acute general peritonitis of the most malignant type, occurring in a young girl upon whom a criminal abortion had been performed.

The case was seen by my father and treated by him on general medical principles. Saline purgatives and other measures not relieving existing symptoms, the condition of the patient becoming worse, I was asked to see the case. The patient's statements were misleading, and, as afterward found, utterly unreliable. All attempts at thorough methodical examination were objected to by the patient, who threw all possible obstacles in our way. When consent was given to a digital examination, it proved unsatisfactory because of the objections and pain experienced by the patient. An examination made at a later hour revealed nothing of a positive nature as far as the cavity of the uterus was concerned. The discharge was scanty and not offensive, the vaginal vault was board-like, thickened. Two immovable masses could be readily made out on either side of the uterus. A diagnosis of acute peritonitis and abscess of the ovaries was made at this time.

The abdomen was exquisitely painful and greatly swollen. The salines were ordered continued, together with hot applications to the abdomen, and hot vaginal douches.

Late the following evening I was summoned to see the patient who had suddenly grown much worse. I came prepared to operate and was accompanied by Drs. Mooney, Newman, Temm, McLean and Fitzpatrick. I found the patient in an almost dying condition. Immediate preparation was made for an operation under unfavorable circumstances, at midnight.

The patient had a temperature of 104. Pulse weak, 142. Under anesthesia a median incision was made. On opening the peritoneum, over a quart of thin, ichorous, foul-smelling, purulent fluid escaped. The intestines were congested and greatly distended; flocculi of lymph and recent adhesions everywhere; ovaries enlarged, rotten and friable; the tubes gangrenous, so soft and disintegrated that Dr. Mooney, who assisted me, actually tore off the right ovary and tube while holding the structures, when the ligatures were being applied. The pelvis was rapidly cleaned out and the abdomen thoroughly flushed. A tube was inserted and the abdomen closed. Patient reacted slowly.

In the morning patient was seemingly better, temperature normal and everything appeared more favorable. In the afternoon the temperature began to rise, and thinking that there might be something in the uterus to account for the rise in temperature, the patient was given a few whiffs of chloroform, and the cavity of the uterus rapidly curetted. Nothing of consequence came away. A few small clots and some disintegrated tissue were all that could be found. Before curetting, digital examination revealed nothing in the cavity or the womb.

In this case the progress of the peritonitis had been most rapid and the patient was profoundly septic. While placed in a most favorable condition after the section, the sepsis was so general that all efforts failed and the woman succumbed. This case teaches us that early operative interference is absolutely indicated and that there are forms of puerperal peritonitis so rapidly fatal that the delay of a few hours may place the patient beyond all surgery.

The curette is not to be relied upon the minute after the infection has extended to other pelvic structures. We might as well expect, by putting out the fire in a grate, to check a

general conflagration raging in a house. Brilliant results have recently been recorded of patients, dying from puerperal peritonitis, saved by a section. Every surgeon who is in touch with the advanced ideas of the day, agrees that no other treatment can avail or hold forth any hope in these desperate cases. In a correspondence with the greatest living authorities in America, I found perfect accord on this subject. In my opinion no case of general peritonitis can recover without operation, and cases reported recovering without operation had best be relegated to the shelves of fiction, or, to be charitable, passed by as an evidence of ignorance on the part of the reporter.

Cases of localized peritonitis frequently recover. No one with any experience doubts that, and occasionally even extensive inflammations of the peritoneum may subside. It has been estimated that the peritoneum has an area of 2700 square inches. When this great area is considered, the extent of a general inflammation is frightful to contemplate.

All cases of peritonitis do not present the same symptoms, and with an increasing experience we find that a diagnosis of some forms of peritonitis is not always easy. The classical symptoms being often masked, or the usual collective symptoms not well marked. Some of them may be absent. A high temperature is not essential. A subnormal temperature may be met with and is relatively frequent. The abdomen may contain quarts of pus and few symptoms of value may be present. Abdominal distention may or may not be well marked. Fatal forms may occur without decided macroscopic changes. It is just this latter class of cases in which the onslaught of the disease is sudden and the fatal result rapid.

Peritonitis may be followed by early septic endocarditis and pericarditis, a frequent cause of early fatal issue. Tympanites always adds to the risk. It may mean additional auto-infection and liberation of the *bacterium coli commune* or other microbes. There is no single symptom to be relied upon. The pulse is usually thin and thready, but may be full and strong. The most constant symptom is pain on pressure, and next to it, the facial expression, the expression of anxiety and alarm. Rigidity of a muscle or a group of muscles is always a sign

of positive value. The amount of pain and suffering of the patient may be very great, but cases are occasionally met with in which the pain is easily borne.

Opium should be withheld, if possible, until a diagnosis is established. Its influence masks all positive symptoms and leaves us in the dark.—*Med. Fortnightly*.

DEPARTMENT OF
DISEASES OF THE EYE AND EAR.

CONDUCTED BY
JAMES L. MINOR, M. D.

Disturbance of Vision from Brain-Tumor.

J. Hirschberg (Berlin) in *Neurolog. Centralblatt.*, No. XV, 1891. Several varieties of visual disturbance due to tumor of the brain are recognized by the author: he arranges and subdivides them under different headings as follows: The first variety, characterized by sudden transitory attacks of blindness, occurs more frequently in these cases than is usually believed. Hirschberg has found it a tolerably constant symptom, but thinks that it is often overlooked, owing to the very fleeting nature of the amaurosis. As a rule the attacks occur suddenly, and last for a minute or two or less. They vary much as to frequency, but are generally repeated several times a day. Beyond this recurring temporary blindness there is no affection of sight, both central vision and field being good. Occasionally the blindness is of longer duration, *e. g.*, half an hour, or even hours. The probable cause is a local anemia due to a passing increase of intracranial pressure, which, in its turn, is in some way connected with the cerebral tumor.

Interference with vision of a more permanent character than the above is to be regarded as directly referable (*a*) to the brain lesion, and (*b*) to changes in the eye itself; hemianopsia of both eyes is the more usual result of the former, while blindness, partial or total, of one or both is induced by the latter. The hemianopsia is not always complete, and in such cases it is often very difficult to map out the field quite accu-

rately, much more so than when well defined. Of course it is possible that by the growth of the cerebral tumor the other half of the field may also, at a later date, be lost, thus causing total blindness; but Hirschberg thinks that loss of sight brought about in this way is rare, death usually supervening before it can take place. In any case the certainty of such an occurrence must be difficult to establish, because the secondary changes in the eye would almost certainly have before then disturbed the remaining vision to such a degree as to completely alter the character of the field. These last remarks must be understood not to apply to growths situated *immediately behind, or close in front of*, the chiasma.

Disturbance of vision due to changes in the eye, considered apart from that caused by direct interference with the visual centers, may in brain-tumor cases be classified under three separate heads, viz.: (1) Enlargement of the blind spot. This is not noticed by the patient, but may frequently be verified in cases where both central vision and field are normal. (2) Contraction of the visual field. This usually occurs before the central vision has been much impaired; definite, if not very exaggerated shrinking in one meridian may often be recognized as an early symptom, to be followed later, as the disease advances, by a more general and irregular contraction. (3) Loss of central vision. This may happen in one of two ways, thus: (a), fine changes in the normal retina, small hemorrhages, deposits of bright glancing material, even very slight and very localized separation may be noticed gradually to infiltrate the macular region, the extension taking place from the edge of the inflamed optic nerve toward the fovea centralis; (b) the nerve fibers going to the center may be directly or indirectly destroyed by implication of the arterial twigs supplying them. In this case the loss of central vision is usually more serious than when brought about in the manner just mentioned.

As the tumor grows, so do all the visual symptoms become more marked. With the loss of sense of form is joined the loss of sense of color, while the light sense remains a little longer, only, however, to be followed by total blindness. At the conclusion of the article the writer refers very briefly to

treatment, admitting that in most instances little or nothing can be done. There is, however, a class of cases, other than those obviously of a specific nature, which are greatly benefited by the prolonged administration of mercury. Two cases are reported by Hirschberg to illustrate his paper.—*Oph. Rev.*, December, 1891.

Orbital Hemorrhages in Young Children.

At a recent meeting of the Ophthalmological Society of the United Kingdom, Mr. Holmes Spicer read this paper. These hemorrhages occur beneath the periosteum in the course of infantile scurvy, a disease generally known as scurvy rickets. The subjects were hand-reared infants, generally between 6 and 18 months of age, who had been brought up mostly on "infant foods." After a period of ill-health, spontaneous hemorrhage came on beneath the periosteum in various parts of the body, sometimes, but not always, during the course of an attack of rickets. In the orbit the hemorrhage occurred in two forms, either as a line of blood-staining at the orbital margin, or as a large effusion producing displacement of the eye and distention of the upper lid; the form which the hemorrhage assumed was due to the anatomical disposition of parts in the orbit. The hemorrhage subsided rapidly at first, but did not disappear entirely, the eye was left prominent for many months. The treatment was essentially that of scurvy; in addition to the ordinary food, juice of fresh meat, a little fruit or vegetable, cod liver oil or cream should be given. The slightest cases recovered rapidly, the more serious ones were slow in progress and often fatal.—*Med. Rev.*, Jan. 9, 1892.

Artificial Cornea.

The *Berlin Klin. Wochenschrift* publishes a seventh case of transplantation of cornea by Prof. V. Hippel of Königsberg. There was a dark brown central discoloration of the cornea, three millimeters in diameter, and reaching down to the membrane of Descemet, which had been caused by the action of nitrate of silver. Cocaine having been applied, the non-transparent part of the cornea down to the membrane of Descemet was cut into by a little trephine, the crown of which was four

millimeters in diameter, and carefully removed. The author then excised by the same means a similar piece from the whole thickness of the cornea in a young rabbit, and transplanted this to the eye of his patient. It filled the wound exactly, and was on a level with the rest of the cornea. Iodoform was applied, and both eyes were bandaged. Healing proceeded without any trouble, and in six weeks the patient was discharged with a completely transparent cornea.—*Lon. Lancet.*

Antipyrin in Hemeralopia.

Hemeralopia, or night-blindness, is an inability to see after sunset, during the night, or during the day if the locality is dark. This affection, which accompanies pigmentary retinitis, begins usually about the age of 18 years, and generally attacks all members of the same family; it is incurable. Grandeclément has discovered by accident the efficacy of hypodermic injections of antipyrin in these cases; he employed them in three patients affected with the symptomatic hemeralopia of pigmentary retinitis, after a treatment with antipyrin. The three patients, who had been compelled to give up their occupations, were soon able to go back and resume their work. *Annals d'Oculistique.*—*The Satellite*, Jan., 1892.

SOMONAUK, ILL., June 6, 1891.

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HOT SPRINGS AND SYPHILIS.—Probably no place on this continent receives more merited praise and abuse than does Hot Springs, Arkansas. Syphilitic subjects by the thousand flock to the place from all parts of the United States, thinking that it possesses specific virtues in curing their disease. They are usually much benefited, and many leave after a six-weeks' or a three-months' course, free from every symptom of the disease. The virtue of Hot Springs consists in the fact that patients visit the place for the special purpose of treatment. While there business and other cares are dropped, bad habits are stopped, and the physician's advice becomes law. Change of scene, fresh mountain air, pure water and healthful surroundings are important factors; and nature has added another in the abundant supply of hot water. Copious imbibition of, and regulated baths in, this water do much to stimulate metabolic activity; they also cause rapid elimination of drugs from the system, and hence allow freer medication. It is an excellent place for the treatment of syphilis, but exercises no specific influence over the disease. Baneful effects cannot be charged directly against Hot Springs, but indirectly it often

works to the subsequent disadvantage of its visitors, and thus furnishes the cause for abuse which it frequently gets. The benefits conferred by a course at Hot Springs have engendered a very prevalent belief that the place possesses specific virtues in the cure of syphilis; that a course at Hot Springs means a cure of the disease. A supposed cure having been effected by a "course at Hot Springs," further treatment is abandoned, and apprehension of recurrence of the disease is dismissed. Lulled into this feeling of security the safeguard of early recognition of the disease, in event of its reappearance, is removed. Syphilis is very apt to reappear if only a brief course of treatment has been carried out, whether at Hot Springs or elsewhere, and if allowed to remain unrecognized for any length of time, serious and often irreparable damage may be done. Through this means Hot Springs does a deal of harm.

MALARIAL HEMATURIA.—We reprint from the New Orleans *Medical and Surgical Journal* an article on Lysemia, or Malarial Hematuria, by Dr. E. H. Martin, of Green Grove, Miss. Whilst we do not entirely agree with the doctor, we consider it one of the best articles ever written on this subject. In the first place lysemia *does* occur in persons who have been exposed to malaria only a very short time, and as an acute disease *de novo*, apparently. Blood examinations so far made show the plasmodia of acute malarias to be in abundance, if not preponderance. Malnutrition of vessels is not necessarily present, for even in typical purpura, damage to vessels is denied. The vomiting, nausea, œdema are as much due to the coexisting or resulting nephritis. We *know* that the kidneys are not only choked up, but inflamed; the epithelia swollen; blood and epithelial casts are in the urine of *all* fatal cases. Next, we most emphatically disagree as to quinine being any more difficult to eliminate than turpentine or Fowler's solution, both of which must come through the kidneys.

We cannot understand why an antidote to the malarial hematozoon should precipitate an attack of a disease obviously due to this parasite. We defy the doctor or anyone else to produce a typical case after any amount of quinine—we

mean to prove that the quinine has produced it. According to this theory, every person in New Orleans ought to have lysemia, *because* they go to the doctor or dispensary after the first chill, for do they not get quinine for it? And, does the levee builder and planter and contractor ever go without it? We think quinine is as innocent of the cause of it as it is of curing it. Finally, not enough stress has been laid on the presence of "acute malarial nephritis" in this condition, just as we have the malarial hepatitis and splenitis—due more to the general intoxicated condition than to local engorgement by broken down blood.

APPENDICITIS.—The attention recently given this disease has been well directed, for it has been shown to be of far more frequent occurrence than was heretofore supposed, and a better understanding of the subject will lead to its still more frequent detection. Physicians should be alive to the importance of recognizing the disease, and should remember that, while a typical case can be readily diagnosticated, there are not infrequently observed masked forms of appendicitis, detection of which requires much acumen and skill. Cases of abdominal cramp, colic, and severe or recurrent attacks of pain in that region, should excite suspicion enough to call for a discriminating examination before the character of the trouble is pronounced. With the detection of the disease the responsibility of the physician is taxed anew, for here conservative medicine and bold surgery meet; the best judgment of the physician is called for, and there must ever be readiness to yield to the surgeon's skill. The life of the patient is jeopardized by too great conservatism, or, if surgical relief be not promptly afforded. Many lives are sacrificed to conservative medicine in the treatment of this disease, and safety certainly lies in an early operation. Those who understand the gravity of the disease, and have passed through the ordeal of frequent attacks of appendicitis, which were treated by medicinal means, to find ultimate relief by laparotomy, are inclined to the belief that the affection, from its incipency, is distinctly a surgical one, and that true conservatism is a prompt operation.

BOOK REVIEWS.

A SHORT MANUAL OF ANALYTICAL CHEMISTRY—QUALITATIVE AND QUANTITATIVE—INORGANIC AND ORGANIC. Arranged on the principles of the cases given at the South London School of Pharmacy. By John Muter, M.D., PH.D., F.R.S.E., &c., &c. First American from the fourth English Edition, by Claude C. Hamilton, M.D., PH.G. Philadelphia—P. Blakiston & Co., 1891.

This is a very valuable compend for one in the chemical laboratory. It is divided into two parts, qualitative and quantitative analysis. Each is subdivided into suitable chapters. The group testing closely follows the original Will plan, which has never been excelled, old though it be. Only the most important reactions are given. Some familiarity with the laboratory is presupposed, and for this reason it is not as good a book for beginners as Attfield, Simon, &c. The additions of the *American* editor are few and unimportant. Why, just a small minority of the modern chemical therapeutic agents are treated of on pp. 88-90, is not apparent. All the matter is greatly condensed, the entire field of analytical chemistry is covered in less than 200 pages. The tests for sugar in urine are not the most reliable ones, and all the information in microscopic examination is given in *less than four lines*. The accompanying cuts are bad. The chapter on sanitary analysis is too brief for any use. The book contains a vast amount of valuable reference matter, however, and is, on the whole, a very desirable acquisition to the chemist's and physician's library.

W. K.

AN ABSTRACT OF SYMPTOMS, with the latest dietetic and medicinal treatment of various diseased conditions; the food products, digestion and assimilation.

This manual has been received from Reed & Carnrick; a very useful and instructive little book it is, one that any physician will be benefited by reading. Too little attention is paid to dieting in disease, and this book explains why and how it should be done.

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This excellent manual, which has reached its second edition, deals with the subjects of which it treats with clearness and precision, and in a most practical manner. It is freely

illustrated, and the various manipulations and their applications are clearly described. Published by P. Blakiston Son & Co., Philadelphia.

ANNALS OF OPHTHALMOLOGY AND OTOTOLOGY.

We note with pleasure the advent of this journal, the initial number of which appears with the January issue. To make it one of the leading journals in the country, Dr. Parker, the editor, has simply to retain the standard with which he starts out.

ANNUAL REPORT OF POSTMASTER-GENERAL OF THE U. S., 1891.

We have received this report from Mr. Wanamaker, and find it replete with information concerning our mails in this country, and to foreign offices. Well-executed maps and illustrations are judiciously used.

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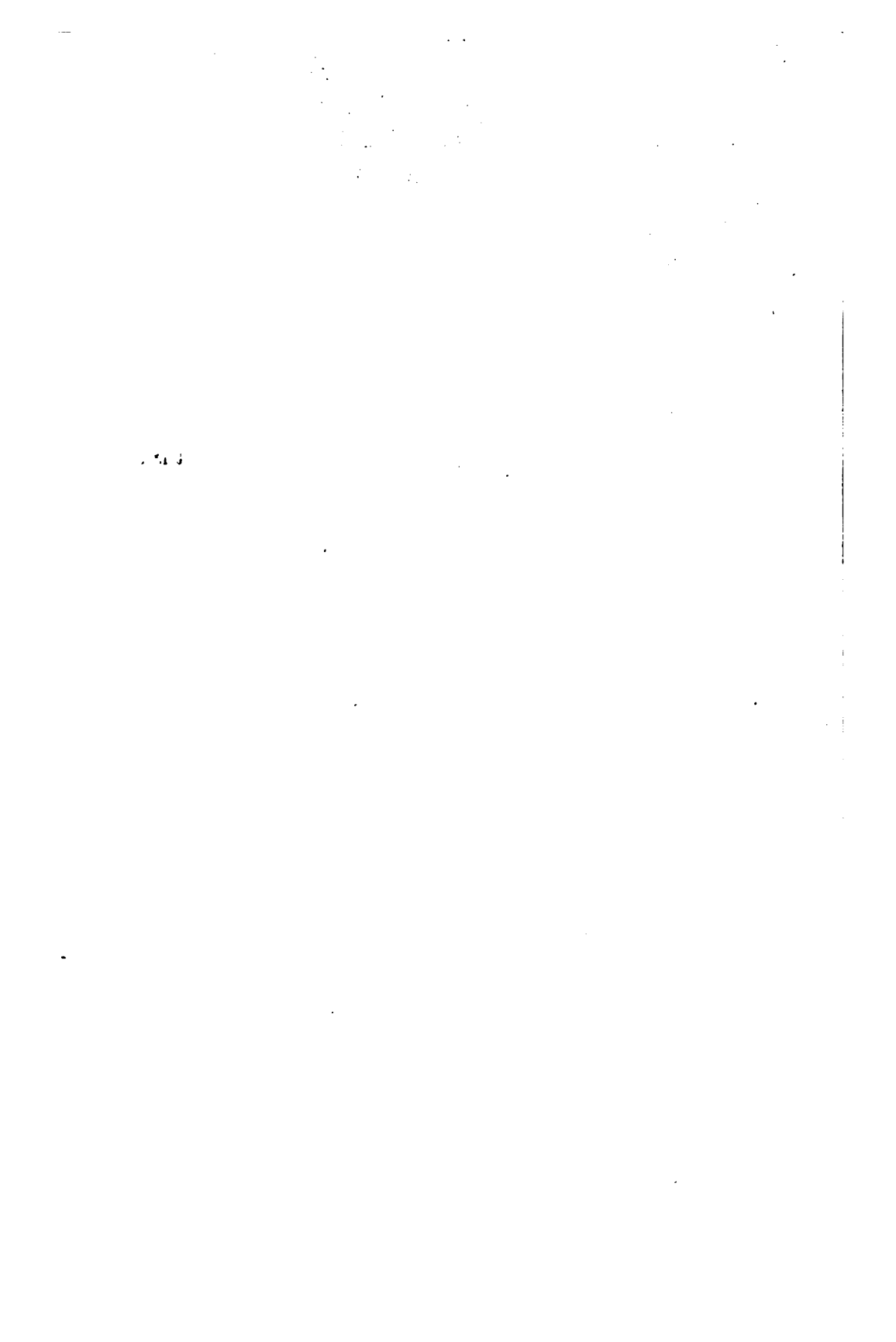
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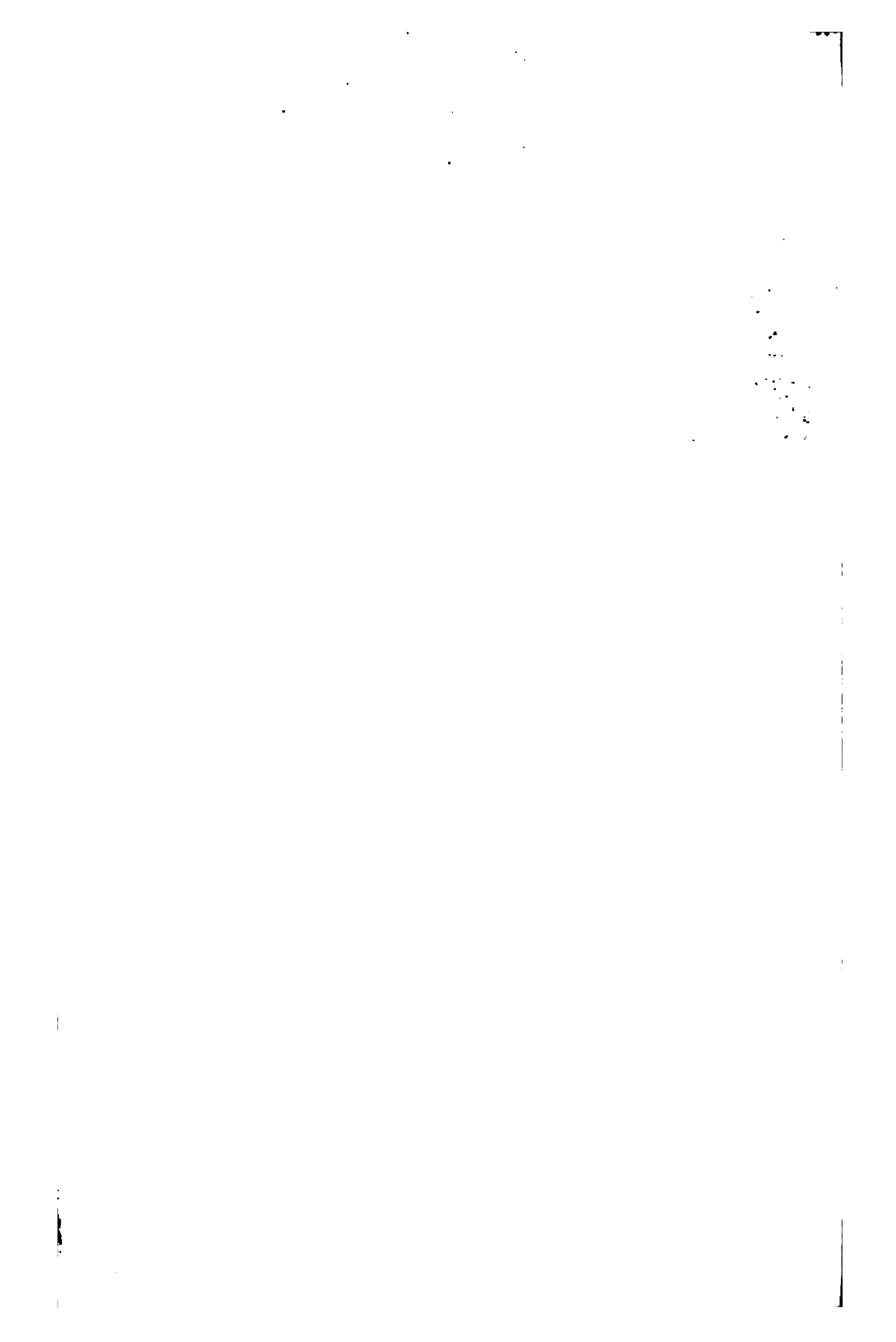
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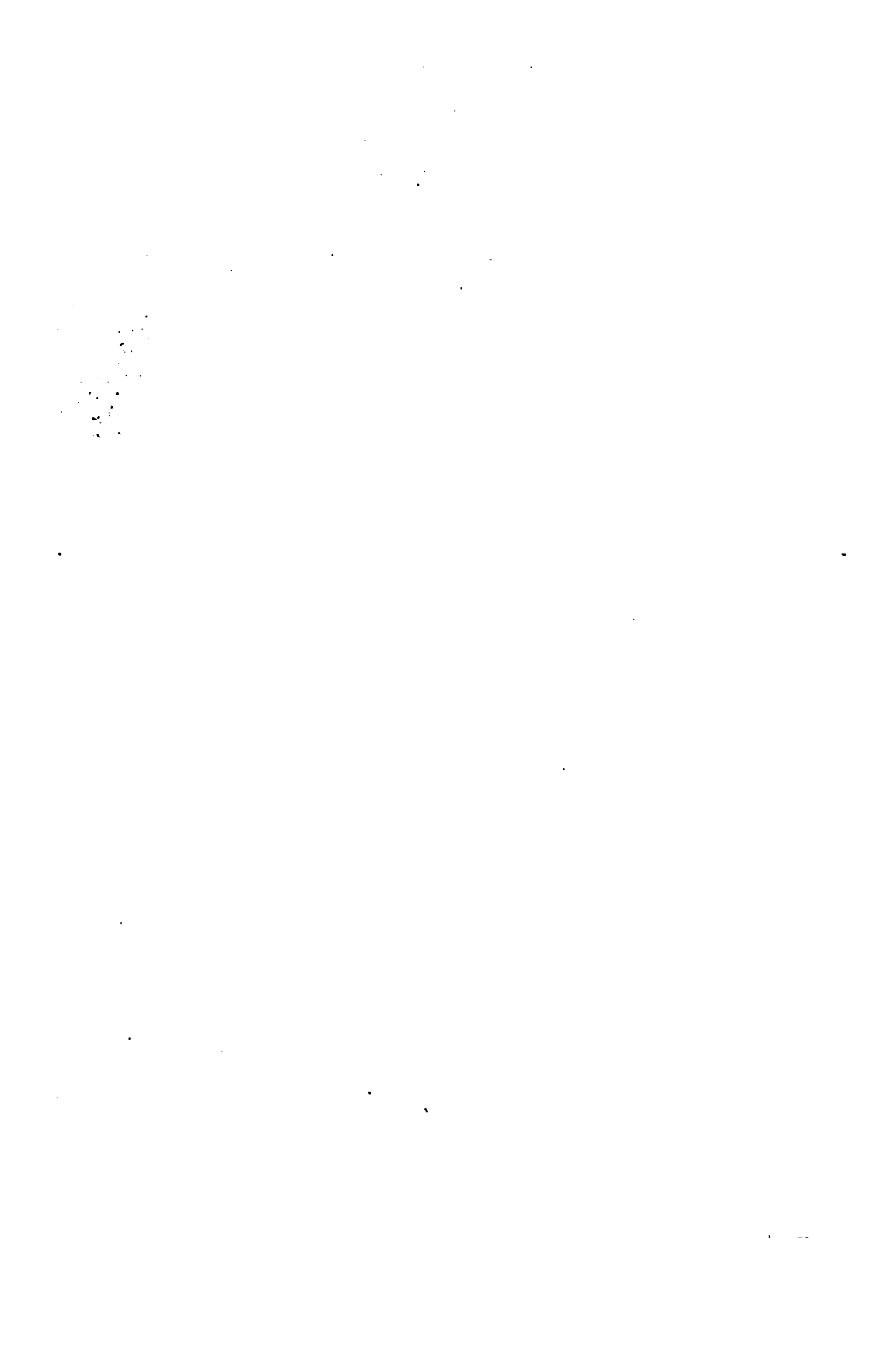
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